of less than 10,000, the least populated being Zebak with a population of only 4,608.

The population density per square kilometers (sq.km.) was 11 for the province as a whole, but ranged from a minimum of one in Keranomonjan, Wakhan and Zebak to the maximum of 47 in Faizabad. Other districts with significant population densities were Ragh with 38 per sq.km., Shahre Bozurg with 32 per sq.km. and Keshem with 24 per sq.km. Eshkashem and Sheghnan were among the districts with the least population densities of 2 per sq.km. and 5 per sq.km., respectively.

The household size in 1979 has been calculated from the number of households given at Table I.1 and the population estimates given at Table II.1; the UNIDATA survey also determined the population and number of households in the villages surveyed, from which household size in 1990 has been calculated. Both the estimates are presented in Table II.2.

Table II.2: Household Size - 1979 & 1990

Name of District	DRA 1979	UNIDATA 1990	Name of District	DRA 1979	UNIDATA 1990
Baharak	6.3	6.9	Khwahan	6.3	4.0
Darwaz	6.8	9.9	Ragh	6.2	9.2
Eshkashem	7.2	N.A.	Shahre Bozurg	5.3	N.A.
Faizabad	5.7	7.6	Sheghnan	6.9	N.A.
Jurm	6.4	6.3	Wakhan	7.5	N.A.
Keranomonjan	6.8	7.2	Zebak	7.9	N.A.
Keshem	6.3	7.6	Province	6.2	7.3

Note: N.A. = Data not available

Sources: DRA, 1986 & UNIDATA, June-October, 1990

As determined by the census, the average household size in Badakhshan province was 6.2 in 1979. According to the UNIDATA survey, the household size in the province had increased to 7.3 in 1990. The districts with relatively larger households in 1979 were Zebak, Wakhan and Eshkashem, with household sizes of 7.9, 7.5 and 7.2, respectively. Both Shahre Bozurg and Faizabad had household sizes below the provincial average, of 5.3

and 5.7, respectively. Information on household size in 1990 is not available for five of the districts where data could not be collected by the UNIDATA. As the table shows, the household size increased in all the districts, compared to the 1979 level, except two; in Jurm it decreased marginally, whereas the decline was quite marked in Khwahan, changing from 6.3 in 1979 to 4.0 in 1990. As the survey findings to be presented later in the report would show, Khwahan was also the district which experienced the largest internal population displacement during the war years, which could be one probable explanation for the decrease in the household size. In two districts, Darwaz and Ragh, the household size in 1990 reached 9.9 and 9.2, respectively.

The agricultural survey of Afghanistan conducted by the Swedish Committee for Afghanistan (SCA) has determined the average household size for Badakhshan province as 7, which includes, on average, 3 adults, 2 persons aged 7-15 years and another 2 persons aged below 7 years (SCA,1990c,Table 62,n.p.). The household size determined by the SCA is very close to the UNIDATA household size of 7.3. The average household size in Afghanistan has increased during the war, as the insecure conditions and deteriorating economic levels would have forced the families, especially with common familial linkages and ethnic ties, to move together.

Another source Eighmy has made estimates for 1979 population in Afghanistan and made projections for 1990 population by relying on a number of sources. For 1979 estimates, original data from the Afghan Demographic Studies (ADS) project was used and projections for population at the district level were made by using an appropriate growth rate. For 1990 projections, factors of death by war, refugees, nomads, internally displaced persons, etc. were calculated based on the UNHCR refugee data and other surveys, and population estimates were worked out using a growth rate of 2.4 percent per annum and making adjustments for the above factors.

Compared to the census, Eighmy estimates the 1979 population of Badakhshan province to be less by about 6 percent. According to him the population of the province in 1979 was 467,304, increasing to 554,374 in 1990. The population growth over the 11 years period is 18.6 percent, implying a growth rate of 1.56 percent per annum. Population and population density for various districts in 1979 and 1990, based on estimates by Eighmy, are given in Table II.3.

It may seem surprising that Eighmy, on one hand, estimates the 1979 population of Badakhshan province on a lower side compared to the census estimate and, on the other, gives a higher value for the population density. That apparent discrepancy is explained in terms of the different estimates for area of the province by the two sources. As pointed out in the previous chapter, Eighmy's estimate of the province's area is about 14 percent lower than the figure provided by the DRA. In cases where large discrepancies exist between the two sources in the areas of the districts, for instance Eshkashem and Ragh, the

population densities given by the two sources also differ widely.

If only Eighmy's estimates are taken as the basis, the population density of Badakhshan province increased by 19 percent from 1979 to 1990, a period of 11 years. For individual districts the increase in the density has varied from about one percent for Keshem to 50 percent for Zebak. Other significant increases in population density over the same period have been 40 percent for Wakhan, 37 percent for Darwaz, 36 percent for Khwahan, 33 percent for Keranomonjàn and 30 percent for Eshkashem. Medium range increases in population density over the 11 years have been 26 percent for Shahre Bozurg, 24 percent for Jurm, 21 percent for Sheghnan, 19 percent for Baharak and 18 percent for Faizabad; one of the lowest increases of 7 percent was experienced by district Ragh.

Table II.3: Population and Population Density - 1979 & 1990

Name of District	Population 1979	Density/ sq.km. 1979	Population 1990	Density/ sq.km. 1990
Baharak	43,273	15.2	51,665	18.1
Darwaz	40,767	10.0	55,749	13.7
Eshkashem	6,840	5.4	8,866	7.0
Faizabad	131,743	41.1	155,070	48.4
Jurm	47,119	13.2	58,839	16.4
Keranomonjan	5,248	1.2	7,205	1.6
Keshem	68,716	22.6	69,343	22.8
Khwahan	7,891	10.2	10,791	13.9
Ragh	58,420	28.3	62,431	30.3
Shahre Bozurg	27,220	30.6	34,393	38.7
Sheghnan	17,125	4.7	20,970	5.7
Wakhan	8,616	1.0	12,562	1.4
Zebak	4,326	2.0	6,490	3.0
Province	467,304	11.4	554,374	13.6

Source: Compiled from Eighmy, 1990

In a recent exercise, UNIDATA has also projected the population in Afghanistan in the year 1990. Compared to the annual growth rates of 2.4 percent by Eighmy, 1.92 percent by the Central Statistics Office (CSO) of Afghanistan government and 2.2 percent by the UNHCR, used to project the 1990 population, the UNIDATA uses a growth rate of 1.95 percent based on the assumption that during 1979-90 the average annual crude birth rate was 41 per thousand and the crude death rate was 21.5 per thousand. The higher crude death rate is assumed in view of the larger number of deaths caused due to both the direct and the indirect effects of the war. Other factors like refugee movement, population displacement within the country, etc. are also taken into account (for details of the methodology used, see UNIDATA,1991,pp.1-6).

The UNIDATA estimates the settled population in 1990 of Badakhshan province to be 615,156, which is higher compared to the other two estimates by the DRA (497,758) and Eighmy (554,374). The male/female population ratio is worked out to be 1.04:1, and the distribution of population in selected age groups is given in Table II.4.

II.2 Refugees

II.2.1 Number of Refugees

Badakhshan province did not experience much refugee movement across the border, though appreciable population movement within the country did take place from some districts. According to Eighmy, a total of 316 refugees left the province and all of them went to Pakistan. In proportional terms, the refugees constitute 0.05 percent of the 1990 population of the province (Eighmy,1990,n.p.).

In his report on demographic trends in Afghan refugees in Pakistan, Yusuf has argued that a more realistic estimate of the family size of Afghan refugees would be 8.5, as established in a study conducted by the UNRISD in 1986 (Christensen and Scott,1988). In support of his argument he quotes a study by Krijgh which shows that the fertility of Afghan women in refugee camps is much higher than that of Afghan women inside Afghanistan. The study is based on a survey of Afghan refugee women in camps in Kohat, NWFP (Krijgh,1987). He further criticises the estimate of the family size of 6.2 based on the statistics compiled by the Government of Pakistan using registration cards. The registration card is required to be filled before a ration card is issued to a refugee family. He points out that the restrictions imposed by the Government of Pakistan of not registering more than seven members of a family, irrespective of the actual number of family members, and of not registering the children born in Pakistan to the refugee women would understate the family size in the official statistics (Yusuf,1989,pp.5-7).

Table II.4: Population According to Age - 1990

Name of District	Total	0-4 Years	5-14 Years	15-64 Years	64+ Years
Baharak	57,004	11,173	15,106	28,901	1,824
Darwaz	64,096	12,563	16,985	32,497	2,051
Eshkashem	9,010	1,766	2,388	4,568	288
Faizabad	173,540	34,014	45,988	87,985	5,553
Jurm	62,069	12,166	16,448	31,469	1,986
Keranomonjan	6,913	1,355	1,832	3,505	221
Keshem	90,519	17,742	23,987	45,893	2,897
Khwahan	11,355	2,226	3,009	5,757	363
Ragh	65,188	12,777	17,275	33,050	2,086
Shahre Bozurg	35,856	7,028	9,502	18,179	1,147
Sheghnan	22,558	4,421	5,978	11,437	722
Wakhan	11,350	2,225	3,008	5,754	363
Zebak	5,698	1,117	1,510	2,889	182
Total	615,156	120,571	163,016	311,884	19,685

Source: UNIDATA, 1991

II.2.2 Origin of Refugees

According to Eighmy, the majority of the refugees, numbering 242, belong to Keshem district where they comprise 0.3 percent of the district population in 1990. In addition, 66 refugees left from Faizabad and 7 from Shahre Bozurg (Eighmy,1990,n.p.).

In the UNIDATA locality survey, refugee and population movements of various kinds were investigated at the level of the main villages. The figures provided at Table II.5 are not meant to give quantitative estimates at the district and province levels, but do reflect the prevalent trends. The findings do not include Faizabad centre, which was not covered by the UNIDATA survey.

The UNIDATA survey shows that there has been refugee movement from all the districts, though its volume has been quite small. The largest refugee movement was experienced by Keshem, from where 2.5 percent of the population in the surveyed villages left for Pakistan and another 0.1 percent left for Iran. From the villages in Khwahan, 1.6 percent of the population also went to Pakistan. The proportion was the smallest for Faizabad from where only 0.1 percent of the village population became refugees.

Table II.5: Population Movement To and From Badakhshan

Population movement (as % of surveyed villages population) towards...

Name of District	Pakistan	Iran	within country	Badak-shan"	Badak-shan""
Baharak	0.7	0.0	1.9	1.5	0.0
Darwaz	0.6	0.0	2.0	0.0	0.0
Faizabad	0.1	0.0	2.9	0.6	0.0
Jurm	0.5	0.0	0.2	0.1	0.2
Keranomonjan	0.3	0.0	1.9	1.8	0.1
Keshem	2.5	0.1	2.5	2.0	0.0
Khwahan	1.6	0.0	8.8	0.0	0.0
Ragh	0.3	0.0	2.7	0.0	0.0

Note: Badakhshan" = into Badakhshan from other parts of Afghanistan
Badakhshan"" = into Badakhshan from outside Afghanistan

Source: UNIDATA, June-October, 1990

Significant population displacement to other areas within the country was experienced in Khwahan, where 8.8 percent of the population of the surveyed villages was thus affected. Jurm was the least affected, where only 0.2 percent of the population was displaced internally.

Population movement from other parts of Afghanistan into Badakhshan province also took place. Two percent of the surveyed villages population in Keshem, 1.8 percent in Keranomonjan and 1.5 percent in Baharak comprised of the people who had moved in from other areas of the country. A very small proportion of the surveyed villages

population, 0.2 percent in Jurm and 0.1 percent in Keranomonjan, comprised of the refugees who had returned from abroad.

It may be noted that data from 5 of the 13 districts could not be obtained during the UNIDATA survey.

II.3 Effects of War on Population

Only in 6 of the 8 districts covered by the UNIDATA survey information could be collected about the casualties suffered by the population due to the war in the surveyed villages. The findings, which do not include the Faizabad centre, are presented in Table II.6.

In terms of the proportion of population of the surveyed villages killed during the war, Keranomonjan lost 9 percent of the population. Population loss for villages in other districts was 7.9 percent for Baharak, 6.7 percent for Darwaz, 4.2 percent for Keshem, 3.8 percent for Jurm and 3.3 percent for Faizabad. The incidence of disability was the highest in Darwaz where 6.7 percent of the surveyed villages population became disabled during the war; the least affected were Jurm and Keranomonjan where only 0.6 percent each of the population in the villages became disabled. Keshem had the largest number of widows and orphans as a result of the war.

Table II.6: Effects of War on Population

Name of District	% Killed	% Disabled	No. of Widows	No. of Orphans
Baharak	7.9	3.0	62	177
Darwaz	6.7	6.7	111	210
Faizabad	3.3	1.8	89	255
Jurm	3.8	0.6	114	200
Keranomonjan	9.0	0.6	78	158
Keshem	4.2	1.5	271	710

Source: UNIDATA, June-October, 1990

II.4 Location of Mines

Location of mines was also investigated in the UNIDATA survey of villages. The type of mines found in each district are given in Table II.7. As earlier stated, the findings for Faizabad do not cover the district centre.

Table II.7: Type of Mines

Name of District	Type of Mines
Baharak	TM57
Faizabad	TM46, MON409, S833, VPM2, MK7
Jurm	MK7, PGM-OM, TM62
Keranomonjan	PMN, MK7, POMZ2, PFM1, TM57, TM62, Unidentified
Keshem	VPM2, MK7

Source: UNIDATA, June-October, 1990

In Baharak, the mines were found in village Khairabad. In Faizabad, the mined villages included Palang Darah, Hafez Mughaul, Ghozak Darah and Yusufabad. In Jurm, the mines were found in village Dashtak. In Keranomonjan, the villages mined were Iskazar, Shahran, Miyan Deh and Rubat. In Keshem, mines were found in villages Dara-i-Jeem-i-Kajran and Farajghani.

III. FOOD SUPPLY

III.1 Situation of Food Supply

Badakhshan has always been a very poor province of Afghanistan. Before the war, local agricultural production met only 50 percent of the province's needs. Even in 1976, a UNDP report described that the people in Badakhshan were living in an emergency situation, especially with regard to the condition of food supply (Afghanaid,1990,p.2). This situation got worse during the war. At present, local produce is only enough to fulfill the needs of one-third of the population. Animal husbandry, another source of income and livelihood in the province, lost 40 percent of production due to the war. Displacement of about 18,000 people within the province has put further pressure on an already fragile food supply situation. An earthquake in April 1990, which shook the districts of Darwaz and Wakhan, created a famine like situation in the affected areas (Operation Salam,1990,pp.99-101).

Droughts, severe winters and unexpected heavy snowfalls further add to the worsening of food supply situation in Badakhshan. UNICEF estimates that at present the incidence of severe malnourishment among children in the province is 40-50 per 1,000 and that of moderate malnourishment 110 per 1,000. Lack of fuel aggravates the deficiency of food by making it difficult for the UN agencies to promptly deliver the food supplies (UNICEF,1991,n.p.).

According to a survey conducted by the Swedish Committee for Afghanistan (SCA) on food deficit in northern Afghanistan, due to the severe food shortage in the province 99 percent of all the wheat sales are made right after the harvest. Badakhshan tops all the nine northern provinces surveyed by the SCA in this regard. Only 19 percent of the farmers sell wheat and a farmer sells on average only 12 percent of his crop, which puts Badakhshan at the bottom in these categories compared to the other nine provinces. This situation has been mainly caused by serious locust attacks on rain fed and irrigated wheat (SCA,1990f,p.16).

According to the SCA survey, 83 percent farmers reported food deficit in district **Baharak** in 1989 and 80 percent purchased wheat to cover their food deficit. The average amount of wheat purchased by the farmers was 78 seers (1 seer = 7 kilograms). Most of the wheat was purchased from traders outside the village. Most of the farmers had to travel by horse for more than a day and a small number had to walk for a day to purchase the wheat (SCA,1990f,p.17).

Wheat deficit was reported by most of the farmers surveyed in district **Eshkashem** by the SCA in 1989. Eighty percent of the farmers also reported damage to the rain fed wheat by locust. The same proportion of farmers purchased an average of 106 seers

of wheat at an average price of Afs.800 per seer. All the farmers purchased wheat from outside the village and they had to walk for a couple of days to make the purchase. Around 80 percent of the farmers bought wheat from traders and another 20 percent from farmers (SCA,1990f,p.17).

In **Faizabad** district, 98 percent of the farmers reported food deficit. On average, 78 seers of wheat was purchased by 81 percent of the farmers to cover their food deficit and none of them sold any wheat at all. All purchases were made outside the village, mainly from traders. Most farmers made a journey of more than a day on horse back and less than half of them walked for one or two days to purchase the wheat (SCA,1990f,p.16). Afghanaid also reports that the people have moved out of Faizabad to Takhar and Kunduz provinces because of the shortage of food and poor crops (Afghanaid,1990,p.2).

In **Jurm** district, 82 percent farmers reported wheat deficit as well as locust damage to irrigated wheat. Locust damage to rain fed crop was also reported by 53 percent farmers. An average amount of 52 seers of wheat was purchased by 84 percent of the farmers at an average price of a little under Afs.2,000 per seer. Most of the purchases were made from traders outside the village involving between 2 to 6 days journey on a horse. The average yield of rain fed wheat came down from 20 seers per jerib in 1989 to 17 seers per jerib in 1990, mainly due to locust attacks. There were no signs of improvement in the situation in the immediate future (SCA,1990f,p.17).

Food deficit as well as locust attacks on irrigated wheat crop were reported by 68 percent of the farmers in district **Keshem**. Farmers reporting self sufficiency in wheat were 15 percent of the total farmers whereas 65 percent farmers purchased an average of 49 seers of wheat at an average price of Afs.934 per seer. Only one percent of the farmers sold an average of 10 seers of wheat. Most of the wheat was purchased from traders outside the village by walking or travelling on a horse for more than a day. In some areas, however, people had to travel for 5 to 6 days to purchase the wheat (SCA,1990f,p.17).

Food deficit in **Khwahan** is reported to be very serious. Government officials have mentioned many cases of starvation in that area. People are reportedly eating leaves and grass due to the shortage of food which has caused intoxication and deaths. Small amounts of wheat leaking from government sources are selling for over Afs.5,000 per seer (WFP,1990,p.7).

All the farmers surveyed through a tiny sample in **Ragh** district reported wheat deficit in 1989. An average amount of 80 seers of wheat was purchased by the farmers at an average price of Afs.1,000 per seer. All the farmers purchased wheat from traders outside the village (SCA,1990f,Tables:1-3,n.p.).

Food deficit in **Shahre Bozurg** was reported by all the farmers surveyed by the

BASIC STATISTICS - BADAKHSHAN PROVINCE

Area:	7,403 square kilometer
Geography:	
Altitude:	960 - 2,800 meters
Capital:	Faizabad
No. of Woloswalis:	7 (Darwaz, Eshkashem, Faizabad, Jurm, Keshem, Ragh, Wakhan)
No. of Alaqadaris:	6 (Baharak, Keranomonjan, Khwahan, Shahre Bozurg, Sheghnan, Zebak)
Planning Region:	North-East
Bordering Provinces:	Kunar, Laghman, Kapisa, Takhar
Population:	
Population 1979:	497,758
Population Density 1979:	11 per square kilometer
Population 1990 (without refugees):	554,374
Population Density 1990 (without refugees):	13.6 per square kilometer
Refugees in Pakistan 1990 (estimated):	316
Refugees in Iran 1990 (estimated):	None
Urbanization:	2.0 percent
Resource Base:	
Agricultural Products & Natural Resources:	Wheat, barley, poppy, fruits & forests, precious stones, gold, iron, lead, copper & salt.
Main Industrial Products:	Woolen carpets & rugs, leather & leather goods, vegetable oil

SCA. All the farmers also reported locust damage to their rain fed wheat. On average, the farmers purchased 82 seers of wheat, mostly from traders outside the village involving a journey on foot lasting three days. The amount of damage done by locust attacks to rain fed wheat was worse in 1990 than in 1989 and this could lead to a greater food deficit in 1991 (SCA,1990f,p.16).

The food situation in **Sheghnan** has reportedly improved after distribution of food by the UN and the wheat price has come down from Afs.1,500 per seer to Afs.900 per seer (WFP,1990,p.6).

Table III.1: Food Items in Short Supply

District	Food Items Not Available or in Short Supply
Baharak	Black tea, mash, spinach
Darwaz	Maize, potatoes, beans, beef, dry milk, green tea, lentils, nakhud, mash, spinach
Faizabad	Beans, lentils, mash, spinach
Jurm	Maize, beans, spinach
Keranomonjan	Maize, beans, dry milk, onions, green tea, lentils, nakhud, mash, spinach
Keshem	Eggs, green tea, spinach
Ragh	Short rice, maize, beans, sugar, dry milk, lentils, mash, spinach

Source: UNIDATA, June-October, 1990

According to the survey conducted by the UNIDATA, maize, beans, lentils and mash were not available in most of the districts at the time of the survey. Dry milk and green tea were not available in 3 districts. Spinach was not available in any of the districts. A little less than half of the food items were not available in the districts of Darwaz, Keranomonjan and Ragh. Table III.1 gives an account of the food items not available in various districts. Faizabad centre is not included in the findings presented for the district.

III.2 Prices of Food Items

The UNIDATA survey determined the prices of selected food items in various districts, which are presented in Table III.3. There is considerable variation in the prices of

food items between different districts, ranging from 139 percent in the case of green tea to 266 percent in the case of barley. There is no price variation in the case of beans.

Comparison of the highest and the lowest prices of food items in various districts shows that the largest number of food items with the lowest prices are available in Keshem district and the largest number of items selling at the highest prices are found in Ragh. In Keshem, 6 items including wheat, short rice, long rice, maize, sugar and salt have the lowest price compared to the other districts. The district next to Keshem in this respect is Jurm, where 5 items namely barley, sugar, beef, mutton and edible oil have the lowest prices. In Ragh, 7 items of barley, wheat, salt, mutton, edible oil, black tea and green tea have the highest prices. Next in this category are the districts of Darwaz and Faizabad, where 3 items each are selling at the highest prices. The prices of the food items are given in Table III.2. It should be noted that the findings do not include the Faizabad centre which could not be covered by the UNIDATA survey.

The price range and average price for different food items are given in Table III.3. Comparable data for all those items is not available for the previous year to provide an understanding of the pattern of price variation over time. Price data collected by the Volunteers in Technical Assistance (VITA) shows that the average price per kilogram of wheat for the province was Afs.220 in June 1987, Afs.200 in June 1988 and Afs.380 in June 1989 (VITA,1990,n.p.). According to the UNIDATA, the average price of wheat in 1990 in the province was Afs.200. This shows an increase of 73 percent in the wheat price between 1987 and 1989, but a 47 percent decrease between 1987 and 1990 for the price of wheat which does not seem plausible given the reported increasing deficit of wheat in the province.

Table III.2: Prices and Availability of Food Items - 1990

(Prices in Afs. per kg)

Food Item	Baha-rak	Dar-waz	Faiz-abad	Jurm	Kera-nomo-njan	Ke-shem	Ragh
Wheat	192	274	178	148	205	118	288
Barley	130	219	137	103	205	130	274
Rice short	342	548	342	315	548	247	N.A.
Rice long	301	479	274	295	411	205	411
Maize	110	N.A.	137	N.A.	N.A.	89	N.A.
Potatoes	55	N.A.	75	77	112	82	93
Edible oil	650	548	537	479	822	493	850
Tea black	N.A.	1,500	2,000	1,850	1,750	2,100	2,300
Tea green	1,850	N.A.	1,800	2,200	N.A.	N.A.	2,500
Sugar	470	500	658	438	575	438	N.A.
Salt	33	44	34	41	37	21	52
Beef	420	N.A.	575	300	548	350	411
Mutton	530	753	767	450	650	600	822
Chicken	1,000	1,500	1,000	1,000	1,500	1,500	800

Note: N.A. = Item not available

Source: UNIDATA, June-October, 1990

The significant price variation for food items from one geographic area to another has also been highlighted by the Orkand Corporation Report (cited in Nathan and Berger,1990,n.p.). The average price of wheat in 1987 in the Northern Provinces (Badakhshan being one of them) ranged from Afs.26 per kilogram in Kunduz to Afs.59 per kilogram in both Badghis and Jowzjan, being 127 percent higher. The difference was much less, being 70 percent, in the winter of 1986/87 when the cost of one kilogram of wheat ranged from Afs.38 in Kunduz to Afs.64 each in Samangan, Faryab and Jowzjan. The prices also increased rather steeply over time. In Badakhshan, the price of one kilogram of wheat

increased from Afs.24 per kilogram in April/May 1985 to Afs.43 per kilogram in the winter of 1986/87, an increase of 76 percent in one-and-a-half years. In April/May 1987, however, the wheat price dropped by 9 percent to Afs.39 per kilogram. The report does not mention how the price data was collected; however, if the prices provided cover the whole province, then the price in 1990 had phenomenally increased by 413 percent, compared to the price in April/May 1987, as the UNIDATA determined the price of wheat in the province to be Afs.200 per kilogram.

Table III.3: Average Price and Price Range of Food Items

(Prices in Afs. per kg)

Food Item	Average Price	Price Range
Wheat	200	118-288
Barley	171	103-274
Rice short	390	247-548
Rice long	340	205-479
Maize	112	89-137
Potatoes	82	55-112
Edible oil	626	479-850
Tea black	1,950	1,500-2,300
Tea green	2,087	1,800-2,500
Sugar	513	438-658
Salt	37	21-52
Beef	434	300-575
Mutton	653	450-822
Chicken	1,186	800-1,500

Source: UNIDATA, June-October, 1990

Prices of selected food items and farm inputs were collected in six districts of Badakhshan province by Afghanaid during their nutrition survey which also covered the provinces of Jowzjan and Faryab. The survey was conducted from July to November, 1990.

Prices of the food items were also asked for the previous year, though reliability of that data could be questioned on the grounds that prices in Afghanistan are very prone to rapid fluctuations over a rather short span of time (Afghanaid,1991,Annex.4,n.p.). Selected findings of the survey are presented in Table III.4.

Table III.4: Prices of Selected Food Items - 1989 & 1990

(Prices in Afs.)

Name of District		Barley/ seer	Wheat/ seer	Rice/ seer	Sugar/ pao	Beef/ pao	Tea/ pao
Baharak	1990	850	1,000	2,600	220	300	900
	1989	900	500	900	180	250	820
Faiz-	1990	1,000	1,200	2,200	230	400	900
abad	1989	700	700	1,500	150	300	900
Jurm	1990	900	1,200	3,000	200	300	920
	1989	900	1,500	2,500	170	250	800
Keshem	1990	760	850	1,800	200	300	750
	1989	350	400	900	150	250	600
Shahre	1990	600	1,000	2,000	450	300	1,000
Bozurg	1989	300	500	1,500	450	200	700
Ragh	1990	1,000	1,300	2,400	600	400	900
	1989	600	700	1,400	400	400	900

Note: One seer = 7 kilograms; one pao = 0.438 kilograms

Source: compiled from Afghanaid, 1991

As shown by Afghanaid, the prices of most commodities registered sharp increases over the previous year. It was found that whereas the prices of cereals, salt, ghee and meat registered increases between 30 to 50 percent in one year in Badakhshan, in the other two provinces of Faryab and Jowzjan the prices in some instances had fallen. The survey team also received reports of damage to orchards by fruit flies and to cereal crops by locust and Sunn pest attacks in all the three provinces. The problem in Badakhshan was accentuated due to three years of drought (Afghanaid,1991,p.27).

District-wise comparison of 1990 prices with the prices determined by the UNIDATA (see Table III.2) show a great degree of compatibility between the findings of

the two sources. Except for maize, all the food items were reported to be available in the districts surveyed by Afghanaid.

Prices of food commodities and fertilizer are also collected regularly by the Development Alternatives Inc. (DAI). According to the source, the wheat price in Badakhshan was Afs.171 per kilogram in the months of both October and November, 1990. In the fourth quarter of the year, the price of one kilogram of wheat in the province fluctuated between Afs.114 and Afs.171 (average price being Afs.146), bracketing Badakhshan with the provinces having the highest wheat price averages in the country; in fact, out of the total of 29 provinces, only Faryab, Badghis, Ghor and Nangarhar had prices higher than Badakhshan, the highest average price of wheat of Afs.175 per kilogram being in Faryab province (DAI,1991,pp.A2.1 & A4.1).

According to VITA, the price of mutton moved from Afs.280 in June 1987 to Afs.410 in June 1988 to Afs.600 in July 1989; according to UNIDATA, the average price of mutton in the province was Afs.653 per kilogram in 1990. This shows an increase of 133 percent over 1987-90 period. In the case of beef the price moved from Afs.190 in June 1987 to Afs.310 in June 1988 and fell to Afs.143 in July 1989 (VITA,1990,n.p.). Price of beef rose again to Afs.434 per kilogram in 1990, according to the UNIDATA survey, showing an increase of 128 percent over 1987-90. The volatility of prices of the food commodities could be explained in terms of the uncertainties caused by the war, natural disasters and destruction of the transport and communication system in the province.

According to DAI, the average mutton and beef prices in Badakhshan in the last quarter of 1990 were Afs.950 per kilogram and Afs.750 per kilogram, respectively. Around the same period when the UNIDATA survey was carried out, the average prices of one kilogram of mutton and beef were found to be Afs.653 and Afs.434, respectively. The difference in the findings of the two sources is explained in the different methodologies adopted for data collection; in the case of DAI, the price data is collected in Peshawar through "informal surveys with Afghan traders, mujahideen, farmers and other sources coming from (different provinces of) Afghanistan" (DAI,1991,p.1). The price data thus collected would not be representing all the regions (or districts) in a province as it is hard to find such a cross section of respondents every month. The data gathered by the UNIDATA, on the other hand, covers all (or as many as possible) districts in a province and is, therefore, more representative.

Difference in price range of animals is also very pronounced, as in the case of food items, in different districts of Badakhshan, according to the findings of the UNIDATA survey. In case of cow, a price difference of 175 percent exists between the districts of Darwaz and Ragh on one hand and district Jurm on the other. There is 233 percent price difference for sheep between district Keranomonjan and district Jurm. In the case of goat, there is a price difference of 167 percent between Darwaz and Jurm. Animal

prices determined by the UNIDATA in various districts are given in Table III.5.

Table III.5: Animal Prices - 1990

(Prices in 000 Afs.)

District	Cow	Sheep	Goat
Baharak	100	20	15
Darwaz	80	20	12
Faizabad	100	20	15
Jurm	140	35	20
Keranomonjan	100	15	15
Keshem	120	20	15
Ragh	80	20	15

Source: UNIDATA, June-October, 1990

Prices of the animals in 1989 and 1990 were also determined by the Afghanaid survey, as given in Table III.6.

Table III.6: Prices of Animals - 1989 & 1990

(Prices in 000 Afs.)

Type of Animal		Baharak	Faiz-abad	Jurm	Keshem	Shahre Bozurg	Ragh
Cow	1990	70	70	80	60	80	40
	1989	45	50	50	40	40	45
Goat	1990	15	12	20	15	12	13
	1989	12	8	15	12	15	15
Sheep	1990	30	25	30	20	20	15
	1989	28	20	20	15	30	20

Source: Compiled from Afghanaid, 1991

The average price of a cow was Afs.66,700 in 1990, which was 48 percent

higher than the average price of Afs.45,000 in the previous year. In Ragh, the price of the animal actually declined during the one year period. The average price of a goat in 1990 was Afs.13,667, being marginally higher by 6 percent over the previous year's average price of Afs.12,833. There was also a marginal increase of 5 percent in the average price of a sheep, being Afs.23,333 in 1990 and Afs.22,167 in 1989. The prices of both goat and sheep declined in Shahre Bozurg and Ragh during the one year period (Afghanaid,1991,Annex.4,n.p.).

IV. AGRICULTURE AND ANIMAL HUSBANDRY

IV.1 Physical Resources

Badakhshan is one of the largest and among the remotest and least developed provinces in Afghanistan. Darya-i-Panj (called Amu Darya outside Badakhshan) passes through this province. Pamir mountains, steep river valleys and Hindukush range in the south determine the physical characteristics of this area. Hindukush range isolates Badakhshan from the rest of Afghanistan. There are large and fertile river valleys in Baharak, Eshkashem, Jurm and Zebak regions. A United Nations source estimates the total cultivable land in the province to be 450,000 hectares, of which 192,000 hectares are under cultivation. Only 33,000 hectares of cultivated land is irrigated. There are pastures over 122,000 hectares, forests over 96,000 hectares and 6,650 hectares are used for horticulture (Operation Salam,1989,pp.98-99).

District Baharak is located in a green valley. Rivers of Kokcha, Ardaj, Zardew and Sarghelan pass through this district and constitute the main sources of irrigation water for agriculture. Most of the land in the district is irrigated with perennial supply of water.

River Kokcha passes through the mountainous district of Faizabad. Most of the agricultural land in the district is non-irrigated. Juis, springs and canals are the main sources of irrigation and water is available during all the seasons.

There are green valleys and high mountains in Keshem district. Greater part of the agricultural land is irrigated. Canals, juis and springs are the main sources of irrigation and water is available throughout the year.

Keranomonjan is a mountainous district. The winter stretches here for six months. It has a high degree of precipitation and mild and dry summers. Irrigated area is larger in size than the non-irrigated area and one year crop rotation is practiced to retain the fertility of land.

District Jurm is surrounded by Hindukush and Suleman mountain ranges. Most of the mountain area is barren. Although river Kokcha flows through this district, yet its passage is so deep that most of the farmers cannot use the water for irrigation.

IV.2 Farming System and Land Tenure

According to the SCA survey (for limitations of the survey methodology, see Annex. C), the most common farm size in Badakhshan province was less than 5 jeribs in 1978. Farms having less than 15 jeribs had roughly half irrigated and half non-irrigated land. Farms above 15 jeribs were all rain fed. Rain fed farming is predominant in Badakhshan and

20 percent of the farmers do not irrigate any of their crops (SCA,1989b,vol.1,p.25). At present, 72 percent of the farmers are owner occupiers, 20 percent are sharecroppers, one percent are owner occupiers cum sharecroppers and 3 percent each are tenants and caretakers (SCA,1990c,Table 64,n.p.). The average number of farm workers per household is 1.9 in the province (SCA,1990c,Table 62,n.p.).

The average number of jeribs per farm are 40.3 for owner occupiers, 36.5 for sharecroppers, 54 for tenants and 135 for owner occupiers cum sharecroppers. This measure of farm size, however, includes both the cultivated and non-cultivated land. If only land under cultivation is taken into consideration then the farm size would come down to 28.7 jeribs for owner occupiers, 26.5 jeribs for sharecroppers, 39.3 jeribs for tenants and 70 jeribs for owner occupiers cum sharecroppers (SCA,1990c,Tables 65a & 65b,n.p.).

Table IV.1: Use of Agricultural Land

(Area in Jeribs)

Name of District	Total Area	Seasonal Crops (%)	Orchards (%)	Fallow (%)
Baharak	299	252 (84)	42 (14)	5 (2)
Darwaz	2	-	2 (100)	-
Faizabad	4,003	2,218 (55)	39 (1)	1,746 (44)
Jurm	1,904	1,017 (53)	84 (5)	803 (42)
Keranomonjan	237	172 (73)	14 (6)	51 (21)
Keshem	607	489 (81)	23 (4)	95 (15)
Ragh	72	70 (97)	2 (3)	-
Total	7,124	4,218 (59)	206 (3)	2,700 (38)

Note: Figures in brackets give the share of a category as percentage of total area.

Source: UNIDATA, June-October, 1990

According to the UNIDATA survey of farmers in the main villages, the major share of cultivable land in Badakhshan is used for seasonal crops. Due to the shortage of water, land is cultivated on rotation basis. The share of temporary fallow land comes next to the land for seasonal crops. The smallest share of agricultural land goes to orchards in the districts covered by the UNIDATA survey. The survey determined that 59 percent of the

I. BASIC ADMINISTRATIVE AND ECONOMIC FEATURES

I.1 Administrative Features

Badakhshan is situated in the extreme north-east of Afghanistan. In area it is the largest province, but is also amongst the least developed and the remotest provinces in the country. In the north it shares the border with the Soviet Union and in its north-east and south-east lie China and Pakistan. Its southern tip touches the provinces of Kunar, Laghman and Kapisa, while to its west lies the province of Takhar. Its eastern part is known as the Wakhan Corridor, comprising of Pamir mountains which are part of the Hindukush range of the Kurakurams. The Amu river flows through the province and is known here as Darya-i-Panj.

High mountains and steep river valleys are the main geographical features of the province. The pamir region mostly comprises of mountains as high as about 3,000 meters above the sea level, which are covered with snow and glaciers throughout the year. The districts of Baharak, Eshkashem, Jurm and Zebak have large fertile river valleys. The Hindukush range in the south effectively cuts off the province from the rest of the country, the only link to which is a horse-track through the Anjuman pass leading to the Panjir valley and Kabul.

The major ethnic group in the province is of Dari speaking Tajiks, though a substantial number of Turkish speaking Uzbeks also live there. People mainly live in small villages dispersed over the mountains.

Badakhshan province is part of the agro-ecological planning region of North-East, which also includes the provinces of Baghlan, Kunduz and Takhar. For administrative purpose the province is divided into seven Woloswalis (districts) of Darwaz, Eshkashem, Faizabad, Jurm, Keshem, Ragh and Wakhan and six Aladqadaris (smaller districts) of Baharak, Keranomonjan, Khwahan, Shahre Bozurg, Sheghnan and Zebak. Faizabad is also the capital of the province. Selected administrative and physical features of the province are given in Table I.1.

The figures presented in the table are based on the 1979 census conducted by the government of the Democratic Republic of Afghanistan (DRA), which could not be completed due to the civil turmoil that ensued that year. The altitudes in the province range between 960 meters (above the sea level) in Keshem to 2,800 meters in Wakhan. Besides Wakhan, four other districts named Eshkashem, Keranomonjan, Sheghnan and Zebak have an altitude of 2,250 meters or above. Another seven districts lie in an altitude range of 1,000 meters to 1,800 meters.

In terms of area, Wakhan is the largest district with 11,770 square kilometers

cultivable land in the districts is being used for seasonal crops, 38 percent is lying as temporary fallow and 3 percent is occupied by orchards. Faizabad has the largest portion of the seven districts' land under seasonal crops (53 percent) while Ragh has the smallest share (2 percent). Most of the land under orchards is in Jurm (41 percent), and Ragh and Darwaz have the lowest share (one percent each) for this purpose.

Within the districts, most of the land in Baharak is allocated for seasonal crops (84 percent) and Jurm has the least share (53 percent) for this use. All of the cultivable land in Darwaz is used for orchards while only one percent of the cultivable land in Faizabad is put to this use. Faizabad has the most (44 percent) and Baharak the least (2 percent) share of its cultivable land as temporary fallow. The details of cultivable land allocated for different uses are given in Table IV.1. The data does not include the centre of Faizabad.

IV.3 Irrigation System

According to the UNIDATA survey of selected localities, springs are the most common means of irrigation in the province. As the main source, springs provide irrigation water in the districts of Baharak, Darwaz, Faizabad, Jurm, Keshem and Ragh. Keshem has the largest share of springs (45 percent) in the districts included in the survey, while Baharak's share is the smallest (one percent). Tubewells and wells are in use only in Faizabad district. Rivers of Kokcha, Ardaj, Zardew and Sarghelan as well as canals provide irrigation water to some of the districts. The relative use of various irrigation sources in the seven districts, excluding the Faizabad centre, is given in Table IV.2.

Table IV.2: Use of Irrigation Sources

District	Tubewells	Wells	Springs
Baharak	-	-	1
Darwaz	-	-	8
Faizabad	3	1	8
Jurm	-	-	4
Keshem	-	-	36
Ragh	-	-	23

Source: UNIDATA, June-October, 1990

IV.4 Crop Production

According to the SCA survey rain fed barley, irrigated wheat, rain fed wheat and linseed were the most important crops in Badakhshan in 1978. By 1986, irrigated wheat was the most important crop and rain fed wheat, rain fed barley and linseed trailed far behind. In 1978, the percentage of farmers growing different crops was 79 for rain fed barley, 77 for irrigated wheat, 64 for rain fed wheat and 21 for linseed. By 1986, 74 percent farmers were growing irrigated wheat, 28 percent rain fed wheat, 26 percent rain fed barley and 15 percent linseed. During 1978-86, however, the average area per farmer under barley more than doubled, declined by 27 percent for irrigated wheat, increased by 49 percent for rain fed wheat and decreased by 19 percent for linseed. Taking into account the variation in percentage of farmers and average area used by them for growing different crops, irrigated wheat appears to be the most important and stable crop throughout this period (SCA,1989b,p.25). This finding is also confirmed by the UNIDATA survey.

According to the UNIDATA survey, wheat and rice are the major seasonal crops in Badakhshan. Both these crops together are cultivated on 97 percent of the total area (in the seven districts covered) under seasonal crops. Other important crops are alfalfa, potatoes, clover, tomatoes and dry onions. Crop wise, the highest share of the land goes to wheat (91 percent) and the lowest share goes to dry onions and tomatoes (0.5 percent each). Within the districts, Keranomonjan and Ragh have all of their cultivable land for wheat while Keshem using 64 percent of its land for this crop has the smallest share in this respect. Rice is produced only in the districts of Baharak, Faizabad and Keshem. The share of cultivable area for growing rice ranges from 4 percent in Faizabad to 31 percent in Keshem.

Animal husbandry is the second most important occupation after crop production in the province. Mountains cover a large area in the province and on higher mountains livestock raising is a very important source of livelihood, which is supported by heavy rainfall suitable for pastures.

Rural Faizabad has the largest share of land used for growing wheat in the districts concerned (54 percent) while Ragh has the lowest share (2 percent). In the case of rice, the largest share is of Keshem (58 percent) and the smallest share is of Baharak (6 percent). District and province wise shares of the area used for all other crops is less than one percent, as shown in Table IV.3.

Table IV.3: Seasonal Crops and Area under Cultivation

(Area in Jeribs)

Name of District	Wheat (%)	Rice (%)	Alfalfa (%)	Potato (%)	Clover (%)
Baharak	233 (92)	15 (6)	1 (X)	1 (X)	2 (X)
Faizabad	2,071 (93)	95 (4)	20 (1)	15 (X)	6 (X)
Jurm	991 (97)	-	7 (X)	5 (X)	12 (1)
Keranomonjan	172 (100)	-	-	-	-
Keshem	314 (64)	150 (31)	5 (1)	7 (1)	8 (1)
Ragh	70 (100)	-	-	-	-
Total	3,851 (91)	260 (6)	33 (X)	28 (X)	28 (X)

Note: Figures in brackets represent percentage of cultivable area in district under the crop; (X) means less than one percent value.

Source: UNIDATA, June-October, 1990

According to the SCA survey, yields of all crops in Badakhshan declined continuously between 1978 and 1985. After 1985, however, the average yield started rising again and the recovery was so strong that in case of barley it returned to the 1978 level of 38 seers per jerib. Yield of irrigated wheat was still 25 percent below its 1978 level and the yield of linseed was less than a quarter of its 1978 level (SCA,1989b,p.25). In 1989, the average yield was 44 seers per jerib for irrigated wheat, 13 seers per jerib for rain fed wheat and 12 seers per jerib for barley (SCA,1990c,p.155). The loss on yield for irrigated wheat and other crops was partly due to the lack of protection against locust and pest attacks and other plant diseases.

According to the SCA survey, in the years 1989 and 1990, 14 percent of farmers reported Sunn pest damage to irrigated wheat in Baharak. Over 80 percent of the farmers reported locust damage during both those years. In Eshkashem district, 80 percent farmers reported some damage to their rain fed wheat caused by locust and all the farmers reported some damage caused to their barley crop because of locust attacks. In Faizabad, 32 percent farmers reported damage to irrigated wheat due to locust attacks; half of the affected farmers lost 50 percent of their crops and a quarter lost up to 100 percent of their crop due to this disaster. In Jurm district, 82 percent farmers reported damage to irrigated wheat and 53 percent farmers reported loss of rain fed wheat due to locust attacks. Damage

to irrigated wheat due to locust attack was reported by 68 percent farmers in Keshem. Damage to rain fed wheat due to locust was reported by 99 percent of farmers and damage due to Sunn pest was reported by one percent farmers. In the case of barley, 23 percent farmers reported crop losses due to locust attacks. In the district of Ragh locust infestation was reported by all the farmers. In Shahre Bozurg, all the farmers reported damage to rain fed wheat and barley due to locust. In case of all the districts, the farmers reported slightly greater damage to their crops in 1990 compared to 1989 (SCA,1990e,pp.11-12).

IV.5 Farm Inputs and Incentives

According to the SCA survey, a large number of farmers in Badakhshan consider that non-availability of farm power, improved seed and fertilizer are their major problems after lack of irrigation water and rainfall. In 1990, the farmers rated non-availability of seed as equal in importance to the lack of rainfall (SCA,1991,p.23). The scarcity of agricultural inputs in the province is also confirmed by the UNIDATA survey.

IV.5.1 Seeds

Seeds for wheat and short rice were available in three and long rice seed in only one of the eight districts covered by the UNIDATA survey in the province. Price range for wheat seed was Afs.110/kg to Afs.178/kg, showing a 62 percent difference between the lowest and the highest price. Price range for short rice seed was from Afs.192/kg to Afs.205/kg and the extent of difference between the lowest and the highest price was merely 7 percent. According to the SCA, in 1990, 38 percent of the farmers in Jurm and 14 percent farmers in Keshem considered non-availability of improved seed a major constraint on crop production. In the province as a whole, 21 percent of the farmers considered non-availability of seed a major problem (SCA,1991,Table 11,n.p.). Table IV.4 shows availability and prices of different kinds of seeds in some districts of Badakhshan. Faizabad center is not represented in the findings, being not covered by the UNIDATA survey.

Table IV.4: Prices and Availability of Seeds - 1990

(Afs. per kg)

District	Wheat	Rice Long	Rice Short
Baharak	N.A.	N.A.	205
Faizabad	178	N.A.	205
Jurm	151	N.A.	N.A.
Keshem	110	274	192

Note: N.A. = Item not available

Source: UNIDATA, June-October, 1990

IV.5.2 Fertilizer

At the time of the UNIDATA survey, white fertilizer was available in four and grey fertilizer in only three of the eight districts covered. Price range for grey fertilizer (DAP) was very narrow, the lowest price being Afs.220/kg and the highest price being Afs.244/kg. In the case of white fertilizer (Urea), the highest price (Afs.100/kg) was 156 percent higher than the lowest price (Afs.64/kg). Prices of fertilizer are given in Table IV.5.

Table IV.5: Fertilizer Prices and Availability - 1990

(Prices in Afs./kg)

District	DAP	Urea
Baharak	244	100
Faizabad	220	80
Jurm	N.A.	64
Keshem	220	90

Note: N.A.= Item not available

Source: UNIDATA, June-October, 1990

According to the SCA, 10 percent farmers in Keshem, 17 percent in Jurm and 12 percent in the province as a whole considered non availability of fertilizer a major constraint on crop production in the year 1990 (SCA,1991,Table 11,n.p). The use of fertilizer in Badakhshan is lowest in the North-East zone and lower than the national average both in terms of farmers using both types of fertilizer and in terms of quantities applied (SCA,1990a,p.33).

The use of fertilizer in the province has declined a great deal during the war. While 50 percent of the farmers used both types of fertilizer on irrigated wheat in 1978, this ratio came down to 33 percent in 1987 and slightly improved to 35 percent in 1988. The amounts used in 1978 were 0.52 bags per jerib for DAP and 0.59 bags per jerib for Urea. In 1987, the use of DAP decreased by 42 percent to 0.3 bags per jerib and the amount used for Urea declined by 29 percent. However, the average amounts used returned to 1978 level in the year 1988 (SCA,1990a,p.33).

IV.6 Farm Power

According to the SCA, only 11 percent farmers in Badakhshan at present consider shortage of farm power a major constraint on crop production (SCA,1991,Table 11,n.p.). The low emphasis on farm power might be because of two reasons; firstly, the number of oxen declined only slightly from 1.6 heads to 1.3 heads per household during the war and, secondly, the farmers were used to sharing oxen and did so more frequently to compensate for the farm power shortages. In the case of irrigated wheat, for example, the ratio of farmers using own oxen to the shared oxen was two-third to one-third before the war, which by 1987 had reversed due to the shortage of oxen (SCA,1989a,p.17).

According to the SCA survey, tractors are not used in the province at all. The UNIDATA has found a small number of tractors in use in only one of the eight districts surveyed. Because of a large number of small and inaccessible farms, the use of tractors is not a plausible option. Upto 1987, the use of hired oxen in the province was also unknown. Under these circumstances, the use of stationary threshers to release oxen would provide an important source of farm power for land preparation (SCA,1989a,p.17).

According to a survey of prices by VITA, the average price per head of oxen in Badakhshan was Afs.30,000 in June 1987, increasing to Afs.42,500 in June 1988 and to Afs.140,000 in July 1989. This shows a 467 percent increase in the price per head of oxen in just 3 years (VITA,1990,n.p.). To the extent the sharp increase in the price reflects the scarcity of oxen, it is compensated by the increased willingness of the farmers to share the animals. As earlier mentioned, due to the small size of farms in the province, tractors might not offer a good substitute for the loss of farm power. High prices of tractors are another inhibiting factor; as shown in Table IV.6, tractors are available in the districts of Baharak, Faizabad and Keshem but in a price range of Afs.3,000,000-5,000,000. In a province where

the majority of farmers are facing wheat deficit and are barely able to meet their food needs, it is highly unlikely that they would be able to afford the use of tractors.

Table IV.6: Prices of Tractor - 1990

Name of District	Price of Tractor (Afs.)
Baharak	5,000,000
Faizabad	5,000,000
Keshem	3,000,000

Source: UNIDATA, June-October, 1990

The survey by Afghanaid also recorded the prices of various animals used as farm power in the selected districts surveyed, which are given in Table IV.7.

Table IV.7: Prices of Farm Animals - 1989 & 1990

(Prices in 000 Afs.)

Type of Farm Animal		Baharak	Faiz-abad	Jurm	Keshem	Shahre Bozurg	Ragh
Ox	1990	150	80	100	100	80	70
	1989	90	55	80	60	90	60
Horse	1990	20	150	150	150	150	100
	1989	20	90	200	100	100	100
Donkey	1990	90	70	60	60	80	60
	1989	75	55	45	45	50	60

Source: Compiled from Afghanaid, 1991

The average prices per head of oxen in 1989 and 1990 were Afs.72,500 and Afs.96,667, increasing by 33 percent over the one year period. The average price of a horse increased by 18 percent, being Afs.101,667 in 1989 and Afs.120,000 in 1990. The average price of a donkey was Afs.55,000 in 1989 and Afs.70,000 in 1990, showing an increase of 27 percent. The price per head of oxen declined in Shahre Bozurg, and the price of a horse remained constant in Baharak and Ragh, over the one year period. In Ragh, the price of donkey also remained unchanged (Afghanaid,1991,Annex.4,n.p.).

Availability of farm machinery and equipment in sample villages of the selected districts of Badakhshan is shown in Table IV.8. The UNIDATA survey shows that tractors and threshers are in use in Keshem district only. A large proportion of mills is used in Jurm and Keshem districts. Tillers are used in two districts only, with the major part of the tillers being located in Ragh.

Table IV.8: Use of Farm Machinery and Equipment in Selected Villages

District	Tractors	Threshers	Mills	Tillers
Baharak	-	-	2	-
Jurm	-	-	30	-
Keranomonjan	-	-	4	-
Keshem	5	4	31	2
Ragh	-	-	11	10

Source: UNIDATA, June-October, 1990

IV.7 Major Constraints in Agriculture

According to the UNIDATA survey, major constraints in agriculture in the province are non-availability of seed, lack of protection against locust and pest attacks, non-availability of irrigation and drinking water, shortage of farm power, lack of fuel for farm power, shortage of manpower and non-availability of funds. District-wise break up of most important constraints to agriculture is given in Table IV.9.

The major constraints to agriculture identified by the SCA are given here in order of importance with the proportion of farmers reporting the constraints in parenthesis. The most important constraint reported in the province was lack of rainfall (24 percent), followed by non-availability of improved seed (21 percent), weeds (15 percent), non-availability of fertilizer (12 percent) and shortage of farm power (11 percent). In selected districts, the biggest problem reported by the farmers in Jurm was non-availability of improved seed (38 percent), followed by non-availability of fertilizer (17 percent), lack of rainfall (16 percent), shortage of irrigation water (10 percent) and shortage of farm power (8 percent). In Keshem, lack of rain was considered the biggest constraint (27 percent), followed by weeds (18 percent), lack of improved seeds (14 percent), shortage of farm power (12 percent) and non-availability of fertilizer (10 percent). The most important constraints to agriculture in Wakhan district were lack of rainfall (67 percent) and weeds (32 percent) (SCA,1991,Table 11,n.p.).

Table IV.9: Major Constraints in Agriculture

District	Agricultural Constraints
Baharak	Non-availability of seeds, lack of pest and locust control and lack of funds
Darwaz	Non-availability of seed, fuel, farm power, water, manpower and funds, lack of locust and pest control
Faizabad	Non-availability of seeds, lack of pest and locust control and lack of water and funds
Jurm	Non-availability of seed, fuel and farm power, lack of pest and locust control and lack of funds
Keranomonjan	Non-availability of seed, fuel, farm power, water, manpower and funds, lack of locust and pest control, presence of mines
Keshem	Non-availability of seed, water, manpower and funds, lack of locust and pest control
Ragh	Non-availability of seed, fuel, farm power, water and funds, lack of locust and pest control

Source: UNIDATA, June-October, 1990

IV.8 Poppy Production

Badakhshan is one of the largest poppy growing provinces in Afghanistan, besides Helmand, Herat and Nangarhar. The history of poppy cultivation in the province is spread over several centuries. It is believed that opium was first introduced in the province by the traders from China and was originally used as a medicine. The resultant addiction created a market for the drug and led to the systematic plantation of the crop. The province now has perhaps the highest level of drug dependency in the country.

Poppy can be cultivated both on irrigated and non-irrigated land, and at as high an altitude as 3,000 meters. The plant does not require much water, which makes it very suitable to grow in the water-scarce Badakhshan province.

A survey conducted by the Afghanaid in 1989 in Badakhshan showed that besides extracting resin, the poppy cultivation is a source of many other products of domestic use for the people of the province. Resin, of course, is the most important product as it is

used in making opium and heroin. The other products include opium oil which is used for cooking, winter fodder (called Konjara) given to the animals to build up their strength in cold days, dried stalks of poppy plants used as fuel for cooking fires or as animal feed and opium soap of two varieties, one for washing clothes and the other for bathing.

The Afghanaid survey was based on interviews conducted by a team of two investigators with informed people in the province. The survey lasted two-and-a-half months. Their findings, however, were thought to be exaggerated, and were compared with the estimates of an Afghanaid programme manager who had been touring the province extensively over three years. Based on the two sets of estimates and some other information available, the study claims to have made its own "best estimates" of opium resin production in the province in 1989, which are given in Table IV.10 (for further details of the methodology followed, see Afghanaid,1989,pp.16-17).

Table IV.10: Opium Resin Production in Badakhshan - 1989

District and Area	No. of Jeribs under Opium	Resin Production (Kg)
District Jurm		
Jurm	600	4,800
Khash	5,000	70,000
Peshkan	900	7,200
Yabab	450	3,600
Ferghamunj	140	1,120
Kaip	90	720
Ferghamiro	100	800
Khostaq	500	4,000
Baharak District		
Warduj	2,000	16,000
Keshem District		
Daraim	5,000	40,000
Gandom Qol	5,000	35,000
Total	19,780	183,240

Source: Afghanaid, 1989

The production estimates are determined on the basis of yield rates estimated for different areas. The table shows that Khash in district Jurm is the largest resin producing

(sq.km.) and Khwahan is the smallest district with only 725 sq.km. For most districts, the area ranges between 3,000 to 4,300 sq.km.

Table I.1: Administrative Division and Physical Characteristics - 1979

Name of District and (Administrative Status)		Altitude in meters	No.of Localities & (main villages)	Area in sq.km.	No. of Households	No. of Households per Village
Baharak	(A)	1,480	133(122)	2,860	7,349	55
Darwaz	(W)	1,340	230(130)	4,094	7,612	33
Eshkashem	(W)	2,660	44(44)	4,298	1,015	23
Faizabad	(W)	1,200	358(358)	3,014	24,542	68
Jurm	(W)	1,550	107(101)	3,581	7,814	73
Keranomonjan	(A)	2,550	40(35)	4,307	824	21
Keshem	(W)	960	161(145)	3,021	11,622	72
Khwahan	(A)	1,000	39(9)	725	1,574	40
Ragh	(W)	1,520	259(183)	1,364	8,395	32
Shahre Bozurg	(A)	1,800	66(66)	894	5,474	83
Sheghnan	(A)	2,250	64(64)	3,784	2,639	41
Wakhan	(W)	2,800	97(97)	11,770	1,224	13
Zebak	(A)	2,600	24(24)	3,691	583	24
Province		960-2,800	1,622 (1,378)	47,403	80,667	50

Note: (W) = Woloswali and (A) = Alaqadari

Source: Compiled from DRA, 1986

Compared to the DRA, another source Eighmy estimates the area of the province to be 40,886 sq.km., which is 14 percent less than that given by the former. Areas of individual districts by Eighmy are given in Table I.2.

As shown in Table I.1, in 1979 the total number of localities in the province

area, followed by Daraim and Gandom Qol in Keshem district and Warduj in Baharak district (Afghanaid,1989,p.31).

The study has also estimated the contribution of poppy production to the local economy in 1989. The production of resin alone amounts to Afs.1,978.992 million. Of the other products, opium oil amounts to Afs.1,384.6 million, oil cake for fodder Afs.276.92 million, laundry soap Afs.23.4 million and toilet soap Afs.10 million. The total contribution, therefore, comes to Afs.3,673.912 million (or US$ 10,291,070, according to the rates prevailing in 1989). The study also points out that this amount constitutes a very small proportion of the value of heroin in international market, and it is not the farmers of Badakhshan who receive the vast profits of the international drug trade (Afghanaid,1989,p.32).

In conclusion, the study stresses the fact that poppy is not only a cash crop but also the source of other useful secondary products like cooking oil, animal fodder and fuel. Any strategy aimed at crop substitution must also take into account the alternative sources of these products. One of the most important measures to be introduced in the area is to improve the food supply situation by strengthening the agricultural infrastructure and establishing extension services (Afghanaid,1989,p.33).

IV.9 Marketing

Bazaars, sarais, roads and transport facilities have assumed a very important position in Badakhshan because of food deficit in the province. The United Nations agencies have utilized direct sales to bazaars and the private sector for bringing down wheat prices and providing food assistance to remote areas and vulnerable groups. Rehabilitation of roads has been undertaken under food-for-work programmes (Operation Salam,1990,pp.100-101).

The marketing facilities in the districts covered by the UNIDATA survey are given at Table IV.10. The centre of Faizabad is not covered in the findings.

The largest proportion of bazaars are found in Baharak and Faizabad has the largest share of sarais. Ragh and Keshem have the smallest share of bazaars and Ragh has the smallest share of sarais.

Table IV.11: Market Infrastructure

District	Bazaar	Sarai
Baharak	6	15
Darwaz	3	4
Faizabad	4	20
Jurm	4	2
Keshem	1	6
Ragh	1	1

Source: UNIDATA, June-October, 1990

In the old city of Baharak there are 5 restaurants, and 220 shops, of which 20 shops have been damaged during the war. In the new city there are 4 restaurants and 640 shops. Cumin and cumin roots are exported from Faizabad to Pakistan and India. Most of the fruit produced in this area cannot be exported to Kabul or abroad because of poor condition of the roads. Walnuts are exported from Jurm to domestic markets and India. Due to bad condition of the roads fresh fruit cannot be exported from this area. The most important of the bazaars is located in Jurm centre, with 500 shops. The main bazaar in Keshem has 400 shops. There is no bazaar or market in district Keranomonjan.

V. ROAD, TRANSPORT AND COMMUNICATIONS

V.1 Transport System

Transportation system in Badakhshan province is little developed. Prior to 1979, there were approximately 670 km of motorable roads in the province. Most of the areas in this province can be reached only by animal transport or by foot. Because of the poor transport facilities communication is difficult and transport costs are high (Operation Salam,1989,pp.98-101).

According to the UNIDATA survey, there is one transport service operating in **Baharak**, called Faizabad Transport Service. In addition, there are about 15 pickups and 5 trucks privately owned which meet some of the transportation needs of the local people.

Transportation service in **Faizabad** consists of 30 trucks only. These trucks have between 4 to 15 tons capacity (UNICEF,1991,n.p.).

Some trucks and pickups in district **Jurm** have also been reported by the UNIDATA.

V.2 Road Infrastructure

According to the UNIDATA survey, the roads passing through the districts of Baharak, Faizabad, Jurm and Keshem cover an area of 1,610,000 square meters. At present 120,000 square meters of the road area is damaged and most of the other 1,490,000 square meters area is un-maintained. There are 8 roads passing through the four districts, 6 of which are graveled and the rest of the 2 are made of dirt. Table V.1 gives district-wise details of dirt and gravel roads and their condition at present. Faizabad centre is not covered in the findings.

There are 2 roads passing through **Baharak**, both of which come from Faizabad; one goes to Eshkashem and the other to Jurm. The road going from Faizabad to Eshkashem is a dirt road. It is 9 meters wide and 80,000 meters long. The road is un-maintained at present and many culverts along its route are broken. The road going from Faizabad to Jurm is a gravel road with a width of 9 meters and a length of 30,000 meters. This road is also un-maintained and some bridges and culverts along the route have been partially damaged.

Table V.1 Nature and Condition of Roads

Name of District	No. of Dirt Roads			No. of Gravel Roads		
	Total	Damaged	Unkept	Total	Damaged	Unkept
Baharak	1	-	1	1	-	1
Darwaz	-	-	-	1	-	1
Faizabad	-	-	-	1	-	1
Jurm	1	1	-	3	-	3
Keshem	1	1	-	-	-	-

Source: UNIDATA, June-October, 1990

One gravel road coming from Keshem and going to Baharak passes through the district of **Faizabad**. This road is 4 meters wide and 70,000 meters long, and is un-maintained at present. Many bridges and culverts on this road have been broken or destroyed.

Three gravel roads and one dirt road pass through the district of **Jurm**. All these roads originate in Jurm and go to Baharak, Camp Madan, Khash and Siab, respectively. The road going to Siab is 5 meters wide and 4,000 meters long. This is the only dirt road in the district and it has been damaged due to the war. All the bridges and culverts on this road have been destroyed. The roads going to Baharak and Camp Madan are both 6 meters wide and 3,000 meters and 32,000 meters long, respectively. Many bridges and culverts along these roads have been broken or completely destroyed. The road going to Khash is 5 meters wide and 2,000 meters long, and is un-maintained. All the bridges and culverts along this road have also been destroyed.

There are no roads in district **Keranomonjan**. Only Chitral road coming from Pakistan has been extended into the district. Mines have been reported on both sides of this road.

There is only one road passing through the district of **Keshem**. It is a dirt road coming from Kalafgan and going to Faizabad. This road is 5 meters wide and 20,000 meters long, and has sustained damages during the war. Most of the bridges and culverts on this road have been broken or completely demolished.

Rehabilitation of some of the roads has been started under the food-for-work programme of the United Nations. It is important to repair the roads as quickly as possible

to open up the routes for transportation in the province and deliver food supplies to the vulnerable groups. A major project for repairing 50 kilometers patch of road between Zebal and Shah Salim is in the planning stage. Plans are also being made to repair the road between Eshkashem and Langar and six bridges along this route. Operation Salam is planning to clear mines from the most important access roads coming to the province from Pakistan and the USSR (Operation Salam,1990,p.101). Two projects for repair of 65 kilometers road have already been completed in the province and have benefitted more than 3,000 workers (Operation Salam,1990,p.65).

The condition of roads in the districts covered by the UNIDATA survey is given at Table V.2. The table shows that 42 percent of the bridges and 49 percent of the culverts are still intact along these roads. There are 40 bridges and 21 culverts that need repair and 6 bridges and 137 culverts need to be rebuilt.

Table V.2: Damaged Area of Roads

(Area in square meters)

Nature of Damage		No.	(%)
Roads	Total Covered Area	1,610,000	(100)
	Damaged Area	120,000	(7)
	Un-maintained Area	1,490,000	(93)
Bridges	Total No.	33	(100)
	Intact	14	(42)
	Partially Damaged	13	(40)
	Destroyed	6	(18)
Culverts	Total No.	309	(100)
	Intact	151	(49)
	Partially Damaged	21	(7)
	Destroyed	137	(44)

Source: UNIDATA, June- October, 1990

Further details regarding the condition of roads in the province are given in Annex.D.

VI. OTHER PHYSICAL INFRASTRUCTURE

VI.1 Energy and Power Supply

Information by UNIDATA regarding the use of energy sources in households is available only for 7 of the 13 districts in Badakhshan province. The energy items for domestic use in the districts covered are given in Table VI.1. Faizabad centre was not covered by the survey.

Table VI.1: Usual Household Energy Sources

Name of District	Energy Sources
Baharak	Electricity, kerosene, firewood, charcoal, dung
Darwaz	Firewood, dung
Faizabad	Kerosene, firewood, charcoal, dung
Jurm	Kerosene, firewood, dung
Keranomonjan	Kerosene, firewood, dung
Keshem	Kerosene, firewood, charcoal, dung
Regh	Dung

Source: UNIDATA, June-October, 1990

Electricity is only available in district Baharak. Kerosene is generally used in 5 of the 7 districts, while firewood is used in 6 districts. Charcoal is used in 3 districts. Cow dung is used in all the districts, though people in Ragh almost exclusively depend on that source of energy.

Prices of the household energy items are given in Table VI.2.

The data collected at the level of the villages surveyed by the UNIDATA shows that kerosene, firewood and charcoal were scarce in district Ragh, while charcoal was not available in Darwaz, Jurm and Keranomonjan.

Table VI.2: Prices of Household Energy Items - 1990

(Prices in Afs.)

Name of District	Kerosene/ gallon	Firewood/ kilogram	Charcoal/ kilogram	Dung/ kilogram
Baharak	1,250	14	137	16
Darwaz	1,600	14	N.A.	16
Faizabad	1,500	33	137	14
Jurm	1,800	19	N.A.	14
Keranomonjan	1,300	41	N.A.	14
Keshem	1,700	25	247	12
Ragh	N.A.	N.A.	N.A.	14
Average Price	1,525	24	173	14

Note: N.A. = Item not available

Source: UNIDATA, June-October, 1990

The average price of kerosene, at the time of the survey, was Afs.1,525 per gallon, ranging from Afs.1,250 per gallon in Baharak to Afs.1,800 per gallon in Jurm. Firewood was available at an average price of Afs.24 per kilogram, the price fluctuating between a minimum of Afs.14 per kilogram in both Baharak and Darwaz to Afs.41 per kilogram in Keranomonjan. The price of charcoal ranged from Afs.137 per kilogram in Baharak and Faizabad to Afs.247 per kilogram in Keshem, the average price of the item being Afs.173 per kilogram. The average price of cow dung was Afs.14 per kilogram, being a minimum of Afs.12 per kilogram in Keshem and a maximum of Afs.16 per kilogram in both Baharak and Darwaz.

According to Afghanaid, in 1990, the price of one gallon of kerosene ranged from Afs.1,242 in Faizabad, Keshem and Ragh to Afs.2,587 in Jurm. The average price of kerosene in the six districts covered by Afghanaid during the survey was Afs.1,708 per gallon, rising by 27 percent over the 1989 price of Afs.1,328 per gallon. Availability of kerosene was reported to be 'very difficult' in Faizabad and Ragh and 'difficult' in Baharak, Jurm, Keshem and Shahre Bozurg. Firewood prices ranged from Afs.12 per kilogram in Ragh to Afs.24 per kilogram in Jurm, Baharak, Faizabad and Shahre Bozurg. The average price of firewood in the six districts covered was Afs.21per kilogram, which was 61 percent higher than the

previous year average price of Afs.13 per kilogram. Availability of firewood in Faizabad and Shahre Bozurg was described as difficult. Animal dung was easily available at an average price of Afs.13 per kilogram, which was 18 percent more than the last year price of Afs.11 per kilogram. The price of one kilogram of dung ranged from Afs.8 in Shahre Bozurg to Afs.16 in Faizabad, Baharak, Jurm and Ragh (Afghanaid,1991,Annex.4,n.p.).

The prices and availability of fuel used for vehicles in the villages surveyed by the UNIDATA are given in Table VI.3.

Table VI.3: Prices and Availability of Fuel - 1990

(Prices in Afs.)

Name of District	Diesel/ gallon	Petrol/ gallon	Name of District	Diesel/ gallon	Petrol/ gallon
Baharak	1,700	2,500	Keranomonjan	N.A.	N.A.
Darwaz	N.A.	N.A.	Keshem	1,400	1,750
Faizabad	1,500	2,000	Ragh	1,600	N.A.
Jurm	1,500	2,800	Average	1,540	2,262

Note: N.A. = Item not available

Source: UNIDATA, June-October, 1990

Both petrol and diesel were not available in districts Darwaz and Keranomonjan. Petrol was not available in Ragh. For rest of the districts, the average price of petrol was Afs.1,540 per gallon, ranging from Afs.1,750 per gallon in Keshem to Afs.2,800 per gallon in Jurm. The price per gallon of diesel ranged from Afs.1,400 in Keshem to Afs.1,700 in Baharak. Both types of fuel were, therefore, available at the lowest price in Keshem. Minutes of a meeting of Badakhshan Coordination Committee, organised by ACBAR in November 1991, show that the average price of petrol in the province had increased dramatically to Afs.10,600 per gallon (ACBAR,1991,p.1).

VI.2 Water Supply

In Badakhshan province, the usual sources of water for domestic consumption are jui (small stream), spring and melted snow, as shown in Table VI.4.

Table VI.4: Usual Household Water Sources

Name of District	Water Sources
Baharak	Jui, spring, melted snow
Darwaz	Jui, spring, melted snow
Faizabad	Jui, spring, melted snow
Jurm	Jui, spring, melted snow
Keranomonjan	Jui, spring, melted snow
Keshem	Jui, spring, melted snow
Ragh	Jui, spring

Source: UNIDATA, June-October, 1990

Information regarding the domestic use of various water sources was collected only in 7 of the 13 districts in the province by the UNIDATA. In each of the districts covered, mainly jui, spring and melted snow provide water for the household use except in Ragh, where melted snow is not a common water source.

VI.3 Shelter and Public Buildings

VI.3.1 Extent of Damage to Buildings

The information presented here is based on the UNIDATA survey of localities; the findings presented at Table VI.5 are aggregates of the village level information for the districts covered, and show the prevalent trends in the province.

The extent of damage inflicted due to the war has varied for various types of buildings. The least damage was suffered by restaurants, 72 percent of which are intact. Sixty-three percent of the shops, 61 percent of the shelters and 49 percent of the mosques are also intact. The worst damage has been suffered by the health centres, none of which is intact. Office buildings also suffered greatly, the proportion of the buildings not suffering any damage being only 9 percent. Only 33 percent each of school buildings and warehouses were spared any damage.

Table VI.5: Damage to Buildings due to War

Type of Building	Total	Intact	Partial Damage	Dest-royed	New Const.	Under Repair
Shelter	7,757	4,768	1,178	843	526	442
Shop	860	539	17	19	277	8
Office	11	1	4	6	0	0
School	27	9	4	10	4	0
Restaurant	18	13	0	1	4	0
Health Centre	4	0	0	3	1	0
Warehouse	6	2	0	4	0	0
Mosque	194	95	18	54	25	2

Note: New Const. = New Construction

Source: UNIDATA, June-October, 1990

At the time of the survey, 11 percent of the destroyed and 15 percent of the partially damaged shelters were still unattended; only 7 percent were reconstructed and 6 percent were repaired. In case of shops, 32 percent were newly constructed and one percent were being repaired. No repair or construction work was yet in progress for the destroyed and damaged office buildings. In case of other damaged or destroyed buildings, repair/re-construction work had started for 80 percent of the restaurants, 26 percent of the mosques, 25 percent of the health centres and 22 percent of the school buildings. The overall progress of the repair and reconstruction work is, therefore, very slow.

VI.3.2 Effects of War on Shelters and Public Buildings in Districts

In **Baharak**, five villages were surveyed by the UNIDATA where 80 percent of the total of 425 shelters were found to be intact. Forty-seven percent of the affected shelters had been reconstructed or repaired. Work on another 27 percent completely destroyed and 26 percent partially damaged shelters had yet to begin.

Out of the 11 shops in the district 9 remained intact while 2 were destroyed and needed reconstruction. All the 3 school buildings had been damaged partially and required repairs. The 2 warehouses and 9 mosques there remained unharmed.

were 1,622, of which 1,378 were the main villages. The number of localities ranged from 24 in the mountainous Zebak to 358 in the capital Faizabad. Besides the capital, only five more districts had more than 100 localities, the number of localities in the mountainous districts being generally small.

Table I.2: Area of Districts

Name of District	Area (sq. km.)	Name of District	Area (sq. km.)
Baharak	2,851.8	Khwahan	776.6
Darwaz	4,074.8	Ragh	2,062.0
Eshkashem	1,257.1	Shahre Bozurg	890.4
Faizabad	3,203.6	Sheghnan	3,661.4
Jurm	3,575.9	Wakhan	8,936.2
Keranomonjan	4,393.5	Zebak	2,160.6
Keshem	3,041.9	Total	40,886.0

Source: Compiled from Eighmy, 1990

In all, there were 80,667 households in the province in 1979, the average number of households per village (locality) being 50. The mountainous Wakhan had the smallest number of 13 households per village and Shahre Bozurg had the largest of 83 households per village. Generally, the village size was smaller in the mountainous districts.

Baharak district is picturesque, very green and located in a valley with four rivers of Kokcha, Ardaj, Zardew and Sarghelan. The district receives substantial snowfall during the winters while the summers are mild and dry. The areas around Zardew and Sarghelan rivers receive many floods every year which destroy substantial agricultural land. The population in the district consists of mainly Tajeks, the minority groups being Uzbek, Hazara and Pashtoon tribes. The language spoken by Tajek and Hazara tribes is Dari, while the languages spoken by Uzbek and Pashtoon tribes are Turkish and Pushto. The centre of the district is called Shari Baharak. The Mujahideen took control of the area from the Kabul government about two years ago, and consequently faced frequent air attacks by the latter.

Faizabad is the provincial capital and comprises of mountains. The areas around the city are green, and Kokcha river flows from the north of the city. The district receives heavy snowfall during the winters but summers are generally dry and mild. Tajeks

Two villages were surveyed in **Darwaz** district by the UNIDATA. There were 200 shelters in the villages, 70 percent of which were intact. All the damaged or destroyed shelters were either repaired or reconstructed.

Of the other buildings, there were 2 offices of which one was destroyed and needed reconstruction, the only school there also was destroyed and required to be rebuilt and all the 3 mosques had suffered partial damages and needed repairs.

In **Faizabad**, five villages were surveyed where 69 percent of the total of 1,041 shelters were found to be intact. Of the shelters damaged or destroyed by the war, 88 percent had been either rebuilt or repaired; only 9 percent destroyed and 3 percent damaged shelters needed to be reconstructed or repaired.

Of the other buildings, 268 of the 319 shops had been reconstructed while the rest of 51 were intact. The only office building there was destroyed but no reconstruction work on that had started yet. Of the 4 school buildings, only one was left intact; one school building had been rebuilt while 2 were lying in an extensively damaged state. One health centre, one building housing a small industry and 4 restaurants were reconstructed. There were also 19 mosques of which 11 were intact, 5 were partially damaged needing repairs and 3 were reconstructed.

In **Jurm**, five villages were surveyed. There were a total of 1,108 shelters of which 48 percent were left intact. Of the affected shelters, 72 percent still required reconstruction or repairs while the rest of 28 percent had been mended at the time of the survey.

There were 33 shops of which 15 were intact, 9 were partially damaged and another 9 had been reconstructed or repaired. Of the 4 school buildings, one was intact, one was partially damaged and one was destroyed, needing reconstruction or repairs; one school building had been reconstructed. There were 2 restaurants both of which were intact. Of the 28 mosques, 12 were intact, 9 were destroyed and 7 had been reconstructed.

Four villages were surveyed in **Keranomionjan**. There were in all 373 shelters of which only 12 percent were intact. Of the shelters affected by the war, 54 percent still needed reconstruction or repairs while the rest of 46 percent had been repaired.

There were 2 shops and 3 restaurants, all of which were intact. Of the 7 mosques, 4 were intact and 3 were partially damaged.

In **Keshem**, five villages were covered during the UNIDATA survey. There were in all 2,790 shelters, 64 percent of which were intact. Of the shelters affected by the war, 75 percent were either destroyed or damaged and needed reconstruction or repairs.

Another 25 percent had already been repaired and reconstructed.

There were 495 shops, 462 of which were intact; 25 shops were damaged or destroyed and needed repairs or reconstruction while another 8 shops had already been repaired or reconstructed. All the six office buildings were in need of repairs. Of the 11 school buildings, 6 were intact, 3 were destroyed and needed to be rebuilt and 2 were reconstructed. All the 8 restaurants were intact. The only health centre was destroyed and needed to be rebuilt. There were 2 warehouses which were destroyed. Of the 74 mosques, 28 were intact, 7 were partially damaged, 23 were destroyed 15 were reconstructed and one was repaired.

In **Khwahan**, two villages were surveyed by the UNIDATA. There were 97 shelters in the villages of which 62 percent were intact. Of the rest of 37 shelters affected by the war, 20 were partially damaged, 8 were destroyed, 5 were repaired and 4 were reconstructed.

The only office building, restaurant and health centre and the 2 warehouses were destroyed and needed to be rebuilt. Of the 6 mosques, 5 were destroyed and one was repaired.

Six villages were surveyed in **Ragh**. There were 1,723 shelters, 68 percent of which were intact. Of the shelters affected by the war, 97 percent were either destroyed or damaged and were in need of reconstruction or repairs. Only 3 percent of the affected shelters had been repaired or rebuilt at the time of the survey.

The only office building and the health centre were destroyed. Of the 4 school buildings, one was intact and 3 were destroyed, required to be rebuilt. There were 48 mosques of which 31 were intact and 17 were destroyed.

III.4 Storage Facilities

There is an acute shortage of food storage capacity in Badakhshan. Table VI.6 shows that there are only three warehouses available in the eight districts covered by the UNIDATA survey, one in Baharak and two in Keshem. The warehouse in Baharak with 5 cubic meter capacity is intact and the other two in Keshem need repair. Five sarais in Khwahan district also have storage space available. Given the level of food deficit in the province and the need for large scale distribution and storage of grain, the existing capacity would meet only a fraction of the requirement. It should be remembered that the findings exclude the Faizabad centre.

Table VI.6: Available Storage Capacity

(Capacity in cubic meters)

Storage Type	Baharak	Keshem	Khwahan
Warehouse (No.)	1	2	-
Avg. Capacity	5	-	-
Intact	1	-	-
Repairable	-	2	-
Sarai (No.)	-	-	5
Avg. Capacity	-	-	-
Intact	-	-	5
Repairable	-	-	-

Source: UNIDATA, 1990.

A memo by the World Food Programme (WFP) gives the storage capacity in the entire province to be 6,500 metric tons. In Faizabad district alone, there is a capacity to store 3,500 metric tons of wheat in various godowns, warehouses and other storage facilities. Three godowns owned by Mujahideen in Baharak, Keshem and Jurm have a capacity each to store 500 metric tons of wheat (WFP,1990,p.11).

VII. HEALTH

VII.1 Health Facilities and Services

During the UNIDATA survey, information regarding the status of health facilities could only be collected in four of the 13 districts of Badakhshan province. Selected indicators, highlighting the scope of health services, are given in Table VII.1.

Table VII.1: Basic Health Indicators

Health Indicator	Faizabad	Jurm	Kerano-monjan	Keshem
No. of Clinics	3	1	1	2
Population/Clinic	51,690	58,839	7,205	34,671
No. of Doctors	2	3	1	1
Population/Doctor	77,535	19,613	7,205	69,343
No. of Dentists	1	1	1	6
Population/Dentist	155,070	58,839	7,205	11,557
No. of Nurses	4	3	0	2
Population/Nurse	38,767	19,613	-	34,671

Source: UNIDATA, June-October, 1990

The population estimates of 1990, given by Eighmy (see Table II.3) are taken as the basis for various indicators given in the table. The most unfavourable population/clinic ratio is found in Jurm, where there is only one clinic for the entire district population of 58,839. There are 3 clinics in Faizabad, but the population per clinic is a substantial 51,690. The actual situation in the district would not be as unfavourable as the survey could not cover the health facilities in the Faizabad centre. The most favourable ratio is found in Keranomonjan where 7,205 people depend on the sole clinic in the district. Keshem with 2 clinics has a population of 34,671 per clinic.

Keranomonjan also has the most favourable doctor/population ratio, though there is only one doctor in the entire district. The most unfavourable ratio is found in Faizabad where 77,535 people depend on each doctor, the number of doctors in the district being two. That, however, is not the whole picture as the UNIDATA survey did not cover the health facilities in the Faizabad centre. Jurm has 3 doctors with the population/doctor ratio of 19,613, while the population of 69,343 in Keshem is served by only one doctor.

Keshem has the largest number of 6 dentists and the second-most favourable dentist population ratio of 11,557, the best ratio being again in Keranomonjan where one dentist serves the entire district population of 7,205. Faizabad with one dentist and a population of 155,070 has the worst ratio, which again does not reflect the whole situation as Faizabad centre was excluded from the survey. In Jurm, the district population of 58,839 is also served by only one dentist.

The clinic in Keranomonjan does not have any nurse. In Jurm, each of the 3 nurses are serving a population of 19,613. Faizabad (without the centre) with 4 nurses and Keshem with 2 nurses have population/nurse ratio of 38,767 and 34,671,respectively.

The scope of medical services offered in the districts surveyed is very restricted,as shown in Table VII.2.

Table VII.2: Scope of Medical Services

Name of District	Type of Medical Service
Faizabad	OPD, surgery, anaesthesia, mobile first aid, tuberculosis treatment, dental treatment
Jurm	OPD, surgery, anaesthesia, tuberculosis treatment, dental treatment
Keranomonjan	Information not available
Keshem	OPD, surgery, anaesthesia, mobile first aid, tuberculosis treatment, dental treatment

Source: UNIDATA, June-October, 1990

The clinic in Keranomonjan was not operating at the time of the survey; information on the medical services offered by the clinic are, therefore, not available. A variety of medical services are available in the rest of the three districts, including the outdoor treatment, surgery, anaesthesia and tuberculosis and dental treatment. The facility of mobile first aid is available only in Faizabad and Keshem.

The frequency of outdoor treatment availed by patients at each clinic is given in Table VII.3. The figures represent daily average patient attendance per clinic, based on the average of three months preceding the survey.

Table VII.3: Outdoor Patient Daily Attendance per Clinic

(Average of three months)

	Faizabad	Jurm	Kerano-monjan	Keshem
Total Patients	40	60	N.A.	101
Males	20	22	N.A.	53
Females	20	38	N.A.	48

Note: N.A. = Information not available

Source: UNIDATA, June-October, 1990

The daily average patient attendance varies from 40 in rural Faizabad to 101 in Keshem. In Faizabad and Keshem, almost an equal number of male and female patients approach the clinics daily for treatment, while in Jurm the number of female patients is significantly more than the male patients. It should be noted that no special arrangements exist in any of the districts covered by the survey for treatment of female patients.

No arrangements exist for vaccination in any of the clinics covered by the UNIDATA survey.

The medical equipment and facilities available with clinics in each district covered by the survey are given in Table VII.4.

As earlier stated, the service of surgery is available in Faizabad, Jurm and Keshem, but a regular operation theatre is available only in Jurm. Mobile first aid service is available in Faizabad and Keshem, but no ambulance or other vehicle is available in clinics in the two districts; the service, therefore, is provided by the medical personnel by using the means of transport available to the general public or by travelling on foot. Although dental treatment is offered in Faizabad, a regular dentist's chair is not available there. In relative terms, the state of equipment and facilities is much better in Jurm compared to the other three districts.

Table VII.4: Equipment and Facilities in Clinics

Name of District	Equipment/Facilities Available
Faizabad	20 beds, 2 oxygen equipment, 1 operation theatre
Jurm	14 beds, 2 manual suction, 1 operation theatre, 1 dentist's chair, 1 microscope, 1 generator, 8 refrigerators, 3 adult scales, 2 baby scales
Keranomonjan	6 beds, 1 oxygen equipment, 1 sterilization equipment, 1 manual suction
Keshem	10 beds, 2 sterilization equipment, 1 manual suction, 1 dentist's chair, 2 microscopes, 1 generator

Source: UNIDATA, June-October, 1990

The common ailments reported by the medical personnel in clinics in each of the four districts are given in Table VII.5.

Table VII.5: Common Ailments

Name of District	Common Ailments
Faizabad	Malaria, diarrhoea, malnutrition, respiratory problems, war injuries
Jurm	Tuberculosis, malnutrition, war injuries
Keranomonjan	Tuberculosis, measles, malnutrition
Keshem	Tuberculosis, malaria, respiratory problems, diarrhoea, measles

Source: UNIDATA, June-October, 1990

The most frequent ailments reported are tuberculosis and malnutrition. Malaria, diarrhoea, respiratory problems and war injuries are reported from two districts each.

The Afghanaid conducted a nutrition survey of Badakhshan, Jowzjan and Faryab provinces during July-November, 1990. In Badakhshan, the survey covered eight districts of Faizabad, Ragh, Shahre Bozurg, Khwahan, Jurm, Baharak, Keranomonjan and Keshem. A total of 4,167 children aged 1-5 years in 131 villages were examined in the province. The sample represented 5 percent of all the children in the given age group in the province. The investigations related to the Mid Upper Arm Circumference (MUAC) revealed that, of the three provinces surveyed, Badakhshan was the worst affected in terms of the incidence of malnourishment among the children. In the given age group, only about 40 percent of the children were normally nourished. In the age group of 1-2 years, 70 percent of the children were found to be severely malnourished. A total of 23 districts were surveyed in the three provinces and among them both Baharak and Khwahan districts of Badakhshan province were found to be ranking first in terms of the incidence of malnutrition. The ranks of the other districts in the province were fourth for Ragh, sixth for Shahre Bozurg, eighth for Keranomonjan, ninth for Keshem, twelfth for Jurm and thirteenth for Faizabad. The incidence of severe malnutrition among children ranged from 17 percent in Keranomonjan to 35 percent in both Ragh and Khwahan. For other districts, the severe malnutrition rate was 33 percent in Baharak, 25 percent in Shahre Bozurg, 24 percent in both Faizabad and Keshem, and 22 percent in Jurm. The percentage of moderately malnourished children ranged from 27 percent in Ragh to 52 percent in Keranomonjan. The moderate malnourishment rates for the other districts were 39 percent for both Baharak and Shahre Bozurg, 35 percent for both Khwahan and Jurm, 34 percent for Keshem and 29 percent for Faizabad (Afghanaid,1991,p.21 & Annex.8,n.p.).

The Afghanaid study also reports that the conditions predominating the children aged 1-5 years were diarrhoea, amoebic dysentery, dehydration, measles, whooping cough, malaria and tuberculosis. Measles and whooping cough were reported to be the leading cause of death among children in Badakhshan province. No immunization was being carried out in any of the three provinces surveyed (the absence of immunization facility is also confirmed by the UNIDATA survey). An immunization programme was started by the Medecins Sans Frontieres (MSF) in a single district in Badakhshan but was abandoned after the murder of one of their doctors (Afghanaid,1991,p.25).

The prices and availability of essential medicines in various districts , based on the UNIDATA survey, are given in Table VII.6.

At the time of the survey, 4 out of the 9 essential medicines were in short supply in district Ragh. Of the 5 medicines available there, 3 were selling at the highest price in the respective price range. Darwaz was also facing shortage of one medicine, and had 3 medicines with the highest prices. Faizabad had the lowest prices for 4 medicines and the highest prices for two medicines. In Jurm, 3 medicines were priced the lowest and two the highest. Baharak had the highest and the lowest prices for 2 medicines each. Ragh and Darwaz, therefore, were relatively the most expensive districts for medicines and were also

facing shortages of certain medicines.

Table VII.6: Prices and Availability of Medicines - 1990

Name of Medicine/unit	Baha-rak	Darwaz	Faiz-abad	Jurm	Keshem	Ragh
Aspirin/tablet	8	15	10	8	13	10
Chloroquine/ tablet	13	10	15	14	14	12
Rifamycin/ capsule	28	50	50	40	35	N.A.
Pencilin/ampule	230	240	200	230	240	310
O.R.S./packet	70	60	50	38	50	N.A.
Ampicillin/ bottle	500	360	550	300	380	400
Saline solution/bottle	1,500	2,000	1,400	2,000	1,800	2,000
Bacterin/ tablet	15	N.A.	5	8	14	N.A.
Vormex/tablet	25	35	20	38	30	N.A.

Note: N.A. = Item not available

Source: UNIDATA, June-October, 1990

The price range and average prices of medicines are given in Table VII.7.

Table VII.7: Average Price and Price Range of Medicines

Medicine/unit	Average Price (Afs.)	Price Range (Afs.)
Aspirin/tablet	11	8 - 15
Chloroquine/tablet	13	12 - 15
Rifamycin/capsule	41	28 - 50
Pencilin/ampule	242	200 - 310
O.R.S./packet	54	38 - 70
Ampicillin/bottle	415	300 - 550
Saline solution/bottle	1,783	1,400 - 2,000
Bacterin/tablet	11	5 - 15
Vormex/tablet	30	20 - 38

Source: UNIDATA, June-October, 1990

VII.2 Condition of Health Facilities in Districts

According to Afghanaid, there is a clinic in **Baharak** named Baharak Clinic, which is run by 3 untrained health workers. The medicines at the clinic are bought from the bazaar which were reported to be short at the time of the survey (Afghanaid,1991,Annex.3,n.p.)

In **Faizabad**, 3 clinics were covered by the UNIDATA survey. One clinic is run by a nurse and 3 health workers and has 12 beds. On average, treatment is provided to 50 patients daily, half of whom are females. Another clinic run by a nurse and a health worker does not have any admission facility. On average, 40 patients are treated here daily, of whom 21 are females. The third clinic has 2 doctors, one dentist and 2 nurses. It has 8 beds, an operation theatre and oxygen equipment. Thirty patients, on average, are treated here daily, half of them being females.

According to Afghanaid, there are four clinics named Sarinang, Daraim, Plang Dara and Khanqa in Faizabad district. Sarinang is run by an untrained health worker and

are the main tribe inhabiting the district, the minority tribes being Hazara and Uzbek. The city of Faizabad is controlled by the Kabul government while its surrounding areas are under the Mujahideen control. The security situation in the district is considered to be unsatisfactory as skirmishes between the Kabul government troops and the Mujahideen are rather frequent.

District **Jurm** lies between the two mountain ranges of Hindukush and Suleman. River Kokcha flows through the district, but is too deep from the surface of the valley to be used as a source of irrigation water. The main ethnic group in the district is of Tajeks, but Hazara and Uzbek tribes are also present in minority. The district is under the complete control of the Mujahideen.

Keranomonjan district is also mountainous, but land here is sandy. Winters are rather long, lasting almost six months. It snows heavily during the winters but the summers are mild and dry. Mainly Ismaili Tajeks live here. Poppy is grown widely and most people, including children, are reported to be addicted to heroin. The area was a scene of frequent air bombardments and attacks by the Kabul government during the war which led to substantial loss of life and property.

Most area in district **Keshem** comprises of valleys which are very green with abundance of trees. The district receives heavy snowfall during the winters but the weather during the summer is dry and mild. The major tribe here is of Tajeks while Uzbek and Nurestani tribes are present in minority. The district is fully controlled by the Mujahideen.

I.2 Economic Infrastructure

Badakhshan was categorised as one of the most backward and poor provinces in the country even before the war. A United Nations agency in 1976 described the living conditions of the people of Badakhshan as alarming requiring emergency measures, and recommended a wide ranging development programme to be implemented at the earliest. Those recommendations, however, were not implemented. The later war years have only aggravated further the level of poverty and backwardness in development in the province.

As determined by the UNIDATA survey, small industry exists in five of the eight districts covered by the survey; five districts and Faizabad city could not be surveyed (for methodology of the survey and further details, see Annex.A). The prevalence and the nature of small industry in various districts is given in Table I.3.

Woolen mats and seasoned leather and leather products are some of the main industries in Baharak, Faizabad, Jurm and Keshem. In Baharak and Faizabad, woolen carpets are also made. Straw, wooden and reed products are also made in the four districts. Vegetable oil is produced in three of the districts, while sugar is made in Keshem only. Stone

is supplied medicines by Free Medicine (FM) and Management Science for Health (MSH). Shortage of medicines was reported by the clinic at the time of the survey. Daraim has a staff of 8, all of whom are untrained. Plang Dara has an untrained staff of 5, and is receiving medicines from Medicin Sans Frontier (MSF). Shortage of drugs was also reported there. Khanqa has 5 trained staff and its medicine supply come from the MSF and the Swedish Committee for Afghanistan (SCA). The clinic was found to be facing shortage of medicines (Afghanaid,1991,Annex.3,n.p.).

According to the UNIDATA survey, the clinic in **Jurm** is run by 3 doctors, one dentist, 3 nurses and 2 health workers. The clinic is relatively well equipped with 14 beds, an operation theatre, a dentist's chair, refrigerators, generator, etc. On average, 60 patients are treated here daily, of whom 38 are females.

According to Afghanaid, the Jurm Hospital is run by 10 trained health staff and is supplied medicines by the MSF and the SCA. Shortage of medicines was reported at the hospital (Afghanaid,1991,Annex.3,n.p.).

The clinic in **Keranomonjan** has one doctor, one dentist and one health worker. It has 6 beds and sterilization and oxygen equipments. The clinic was not operative at the time of the UNIDATA survey.

In **Keshem**, 2 clinics were covered by the UNIDATA survey. One of the clinics is run by 5 dentists, one nurse and 3 health workers. It does not have any admission facility, but is equipped with a dentist chair and a generator. The average number of patients treated here are 100, of whom 60 are females. The other clinic is run by a doctor, a dentist, a nurse and 4 health workers. It has 10 beds and 2 sets of sterilization equipment. On average, 102 patients are treated here daily, 36 of them being females.

Afghanaid study reports 3 clinics operating in Keshem with the names of Jaher Shah Baba, Bazaar Tishkan and Kahshow Hospital. Staff at all the 3 clinics is reported to be trained. Shortage of medicines was reported at all the clinics during the survey. Jaher Shah Baba has 10 staff members and medicines there are supplied by the SCA and the MSH. Bazaar Tishkan with 2 staff members gets its medicines from the FM. The MSF supplies medicines to Kahshow Hospital which is run by 4 staff members (Afghanaid,1991, Annex.3,n.p.).

District **Ragh** has a clinic called Yawan, according to the Afghanaid survey. Medicines there, reported to be in short supply at the time of the survey, are supplied by the SCA and the MSH. The clinic is run by 7 staff members (Afghanaid,1991,Annex.3,n.p.).

The survey by Afghanaid also covered 2 clinics in district **Shahre Bozurg**. Sangar-e-Jihad clinic is run by 9 trained staff members and has a supervising council

arranging for medicines, which were reported to be in short supply during the survey. Dawang clinic gets its medicines from the International Medical Corps, but the medicines were reported to be in short supply. The clinic has 3 staff members who are trained (Afghanaid,1991,Annex.3,n.p.).

According to the WHO database, there are 24 clinics and 2 hospitals in Badakhshan province, which are run by 70 health workers of various categories (Operation Salam,1990,p.80).

VIII. EDUCATION AND TRAINING

VIII.1 Educational Facilities

There are three types of educational institutions in Badakhshan province. In mosques and madrassas mainly religious education is imparted, but often some courses from the formal education given in schools are also included. The number of various types of educational facilities in various districts are given in Table VIII.1.

Table VIII.1: Types of Educational Institutions

Type of Institution	Baharak	Darwaz	Faizabad	Jurm	Kiranomonjan	Keshem	Khwahan	Ragh
Primary School	7	10	35	21	3	28	4	9
Madrassa	3	24	18	1	N.A.	6	N.A.	20
Mosque	413	600	526	N.A.	3	475	N.A.	200

N.A. = Information not available

Source: UNIDATA, June-October, 1990

The number of madrassas in Keranomonjan and mosques in Jurm and both types of institutions in Khwahan could not be ascertained. Only primary level schools exist in the districts concerned. Faizabad centre is not represented in the findings. Selected educational indicators for various districts are given in Table VIII.2.

The number of teachers per school varies from 2.5 in Darwaz to 4 in both Khwahan and Ragh. Female students are only enrolled in Darwaz, Keshem and Khwahan where male/female student ratio is 1.2, 3.4 and 2.0, respectively. The number of students per teacher varies from 19 in Khwahan to 60 in Baharak, and the enrollment per school ranges from 60 in Faizabad to 172 in Baharak. Taken together, the indicators are relatively most favourable for Khwahan and most unfavourable for Baharak. It should be remembered that data from Faizabad center could not be collected and the actual situation for the district as a whole could be different.

Table VIII.2: Selected Educational Indicators

Indicator	Baharak	Darwaz	Faizabad	Jurm
No. of primary schools	7	10	35	21
No. of teachers	20	25	100	71
Teachers per school	2.9	2.5	2.9	3.4
No. of students	1,206	900	2,103	2,590
Males	1,206	500	2,103	2,590
Females	0	400	0	0
Males/female student	-	1.2	-	-
Students per teacher	60	36	21	37
Enrollment per school	172	90	60	123
Indicator	**K.monjan**	**Keshem**	**Khwahan**	**Ragh**
No. of primary schools	3	28	4	9
No. of teachers	9	110	16	36
Teachers per school	3.0	3.9	4.0	4.0
No. of students	282	2,441	300	720
Males	282	1,883	200	720
Females	0	558	100	0
Males/female student	-	3.4	2.0	-
Students per teacher	31	22	19	20
Enrollment per school	94	87	75	80

Source: UNIDATA, June-October, 1990

VIII.2 Enrollment Ratios

The distribution of population for various provinces, for the year 1990, with respect to age groups is estimated by the UNIDATA in a recent exercise (see Table II.4). The estimates provided can help to calculate the enrollment ratios, but unfortunately data from the UNIDATA survey regarding the actual enrollment is available only from 8 of the 13 districts in Badakhshan province (see Table VIII.2). The enrollment ratios here,

therefore, would be calculated only for those 8 districts. UNIDATA estimates the 1990 population in the age group 5-14 years in the said 8 districts to be 140,630 (UNIDATA,1991,p.91). The male/female ratio of the population in Badakhshan province is estimated to be 1.04:1.00 (UNIDATA,1991.p.15), meaning that there were 71,721 males and 68,909 females in the age group 5-14 years in 1990, in the 8 districts concerned. This age group represents the segment of population eligible for enrollment in primary and middle schools. If the UNIDATA survey findings of the male/female enrollment are taken to be reflecting the actual situation in the 8 districts, there are 9 male students to every female student in the schools. It means that in the total enrollment the male students' share is 90 percent and that of the female students 10 percent. This shows how great is the imbalance between male and female enrollment, in a population where the number of both the sexes is almost equal. This also means that 92.5 percent of the total population eligible for enrollment in the said 8 districts is out of the school system; of the total eligible males, only 10.2 percent are attending school while the proportion of females in this category is much less, being only 1.5 percent.

IX. RESETTLEMENT NEEDS AND DONOR ASSISTANCE

IX.1 Major Resettlement Needs

In terms of area, Badakhshan is the third largest province in Afghanistan after Helmand and Herat. It is part of a highly mountainous region where communication has always been very poor, making it one of the remotest provinces in the country. The winters last from November to April and are accompanied by extreme cold and heavy snowfall, making accessibility to the mountainous areas almost impossible. As far back as 1976, people in the province were described by a United Nations agency as living in extreme poverty calling for intervention by development agencies on emergency basis. Far from receiving any such assistance, people in the province have been further ravaged by a war spread over more than a decade.

As reported earlier, the UNIDATA survey could not cover all the districts in the province. The findings of the survey recounted here, therefore, would mostly allude to the districts covered by the survey. The survey found that most types of skilled workers in the province are hard to find, the shortage of karez makers, mechanics, carpet and silk weavers, midwives and drivers being particularly acute. The shortage of skilled workers has also badly affected the local small scale rural industry, most of which consists of carpet and silk weaving, producing leather goods and stone quarrying.

Badakhshan was relatively less affected directly by the war, which is the principal reason why a very small proportion of its population became refugees. Although some population movement took place from the province to other parts of the country, the overwhelming majority of the people did not leave their area of settlement. Many people died or became disabled in Keranomonjan, Baharak and Darwaz districts due to bombardments by the Kabul government. Mines still exist in some districts, particularly in Baharak, Faizabad, Jurm, Keranomonjan and Keshem, and continue to be a security hazard to the life and property of the people.

The province even before the war was known as a food deficit area. The UNIDATA survey determined that although most food items were available in the market in most districts, their prices were far beyond the reach of most people. A high incidence of malnourishment among the children in the province was determined by a United Nations agency.

Agriculture and animal husbandry have been the two most important occupations in the province. Irrigation water has been always scarce in the province and agricultural production depends greatly on rains. The war has further aggravated the situation by damaging the water channels. Agricultural production has also declined due to wide spread locust and pest attacks, non-availability of agricultural inputs and scarcity of

farm power. Animal husbandry has greatly suffered due to wide-spread prevalence of animal diseases and non-availability of veterinary services. Animal stocks in many areas have perished due to bombardments by the Kabul government. Poppy production is common in the districts of Baharak, Jurm and Keshem, and is the source of a number of household products besides resin, which is mainly used for the production of opium and heroin. The household and other products generated include cooking oil, bathing and washing soaps, animal fodder and fuel for cooking fires. The province is believed to have one of the highest incidence of heroin addiction in the country.

Badakhshan province even before the war had very few motor-able roads which have been either destroyed or damaged during the war. Most areas in the province are accessible only by animal transport or by foot. The transport system is very under-developed. Most of the graveled and dirt roads in the province are either damaged or un-maintained, and many culverts and bridges along the roads have also been damaged or destroyed. The prices of fuel, where available, are on a very high side.

The families depend a great deal on firewood and animal dung as the sources of household energy. Prices of kerosene are on a high side which many families are not able to afford. This means that more trees are being cut to generate firewood and the process of deforestation has accelerated.

As the province did not have to face the war directly, most of the buildings there have remained intact. However, very few of the damaged buildings are being repaired or reconstructed, the reasons being both the scarcity of skilled manpower and extreme poverty of the people. The storage facilities are reported to be adequate in Faizabad district but insufficient in rest of the province.

The condition of health facilities is generally very poor in the province. Most clinics in the rural areas do not have trained doctors and health workers, are very poorly equipped and, therefore, offer very restricted services. No arrangements exist for vaccination of children in the rural areas. Tuberculosis, malnutrition, diarrhoea, malaria and respiratory problems are common in the province. Medicines are generally available but not at affordable prices for most people. Most of the schools in the province also lack trained teachers, proper buildings and education materials. The enrollment ratios at the primary and secondary levels are dismally low.

The following main obstacles to resettlement in each of the surveyed districts have been identified:

Table IX.1: Major Obstacles to Resettlement

District	Major Obstacles
Baharak	Scarcity of most skilled workers, significant proportion of disabled people, mined areas, high food and animal prices, non-availability of farm inputs, lack of locust and pest control, damaged and/or unkept roads, inadequate health services and poorly equipped clinics, shortage of educational material, poor condition of school buildings
Darwaz	Significant proportion of disabled people, high food and animal prices, non-availability of farm inputs, lack of locust and pest control, scarcity of fuel and farm power, scarcity of irrigation water, scarcity of manpower, damaged and/or unkept roads, inadequate health services and poorly equipped clinics, shortage of educational material, poor condition of school buildings
Faizabad	Scarcity of most skilled workers, mined areas, high food and animal prices, non-availability of farm inputs, lack of locust and pest control, scarcity of irrigation water, damaged and/or unkept roads, inadequate health services and poorly equipped clinics, shortage of educational material, poor condition of school buildings
Jurm	Scarcity of most skilled workers, mined areas, high food and animal prices, non-availability of farm inputs, lack of locust and pest control, scarcity of fuel and farm power, damaged and/or unkept roads, inadequate health services and poorly equipped clinics, shortage of educational material, poor condition of school buildings
Keranomonjan	Scarcity of most skilled workers, mined areas, high food and animal prices, non-availability of farm inputs, lack of locust and pest control, scarcity of fuel and farm power, scarcity of irrigation water, scarcity of manpower, inadequate health services and poorly equipped clinics, shortage of educational material, poor condition of school buildings

Keshem	Scarcity of most skilled workers, mined areas, high food and animal prices, non-availability of farm inputs, lack of locust and pest control, scarcity of irrigation water, scarcity of manpower, damaged and/or unkept roads, inadequate health services and poorly equipped clinics, shortage of educational material, poor condition of school buildings
Ragh	High food and animal prices, non-availability of farm inputs, lack of locust and pest control, scarcity of fuel and farm power, scarcity of irrigation water, scarcity of household energy items, inadequate health services and poorly equipped clinics, shortage of educational material, poor condition of school buildings

IX.2 Rehabilitation Programmes in the Province

The rehabilitation programmes in Badakhshan province are related to the sectors of agriculture, food, health, drug abuse control, education and communication. In agricultural sector, on-going projects in Faizabad, Jurm, Keshem and Ragh aim at crop protection against locust and Sunn pest attacks and introduction of new (improved) farming practices. The total cost of the projects in the four districts is US$ 138,518. Under another project, a veterinary clinic is planned to be established in Yaftal valley at a cost of US$ 38,295. The projects plans to provide veterinary services to 17,000 sheep/goats, 4,000 cattle and 5,000 pack animals.

Under the food assistance programme, food aid was provided to 6,800 families at a cost of US$ 18,590 in Ragh and Shewa. The project has been completed. Under another completed project, staple food to most vulnerable groups in the province was provided during the winter months of 1989/90 and food reserves were built up. The project cost for the province was US$ 308,750, and involved a commitment for the supply of 10,282 metric tons of wheat, 1,066 metric tons of sugar and 35 metric tons of cooking oil.

In the sector of health, a project already completed was aimed at procuring and distributing emergency medical supplies to the earthquake victims in the rural areas in the province. The total project cost was US$ 37,968. Another completed project at a cost of US$ 200,000 aimed at reconstruction of two district hospitals, training of health staff and community education. Under a third completed project drugs were provided to clinics to meet emergency request for fighting the outbreak of amoebic dysentery. The project cost was US$ 1,153. Under an operational project costing US$ 299,450, training is to be provided to health personnel and equipment is to be supplied to the clinics in the rural areas. Another on-going project costing US$ 217,404 aims at constructing new clinics which

will also form bases of training to the disabled. An operational project provides support to procurement, distribution and testing of drugs at a cost of US$ 53,366. A project aimed at training health personnel and providing medical supplies and equipment at Faizabad provincial hospital at a cost of US$ 28,500 has been abandoned. A planned project aims at distribution of basic medical kits from Denmark and training health personnel in their use. The project is expected to cost US$ 17,892. A project in the pre-pipeline stage would train health personnel in the use of technical equipment, standardise training and arrange training of trainers. The project is expected to cost US$ 830,000.

In the area of drug abuse control, a survey of several districts in the province aimed at studying poppy cultivation, analysis of local economic needs and attitude towards crop substitution has been completed. The cost of the study was US$ 4,800. Two planned projects costing a total of US$ 483,120 would provide alternative income to families to prevent return to poppy cultivation by distributing improved seed and fertiliser and repairing irrigation systems through food-for-work programme. Another planned project costing US$ 750,000 would promote crop substitution and income generating activities, and increase awareness of the dangers of drug abuse in young Afghans.

In education, a project at a cost of US$ 139,000 is planned for construction of boys and girls schools in Argo, Baharak, Faizabad and Jurm to provide income-generating occupations and to promote drug awareness. Another awareness promotion campaign is planned at a cost of US$ 50,000. A project in the pre-pipeline stage would aim at eradication of poppy cultivation through construction of a primary school under cash-for-work programme and by beginning drug awareness campaign through education in schools. The cost of the project is estimated to be US$ 27,150.

In communication, road repair work has been completed on Garm Shehshma-Badakhshan road costing US$ 43,406. In addition, emergency assistance consisting of supplies and transportation in areas affected by the earthquake has been provided, costing US$ 50,000.

The information provided by ACBAR/SWABAC on projects in the province is presented in Annex.E.

While the approach to address the most pressing needs of the people of the province has generally the right orientation, the scope of the activities seems to be highly restricted. In terms of priority, much greater emphasis is needed on activities aimed at restoring the agricultural infrastructure, providing agricultural inputs at highly subsidised rates and building a wide network of agricultural extension services. Recently, apprehensions have been expressed that such measures could lead to a further boost to the poppy production in the areas known for growing the crop and, therefore, great caution is required in funding such activities in those areas. The credibility of this argument is susceptible for

quarrying is common in Baharak, Faizabad, Jurm and Keranomonjan, while precious stones are extracted in Faizabad and Jurm. No significant rural industry was reported in Darwaz, Khwahan and Ragh.

Table I.3: Small Scale Rural Industry

Name of District	Type of Industry
Baharak	Woolen carpets, jaldek, galim & namad, leather & leather goods, wood carvings, straw baskets, stone quarrying, cast iron & steel products, reed, vegetable oil
Faizabad	Woolen carpets, jaldek, galim & namad, silk, leather & leather products, straw mats & baskets, stone quarrying, precious stones, reed, vegetable oil
Jurm	Galim & namad, leather & leather products, stone quarrying, precious stones, reed, steel & iron products
Keranomonjan	Stone quarrying
Keshem	Galim & namad, leather & leather products, straw mats & baskets, wood carvings, reed, sugar, vegetable oil

Source: UNIDATA, June-October, 1990

I.3 State of Manpower

In the main villages surveyed by the UNIDATA (for names of main villages surveyed, see Annex.B), availability of skilled workers of various categories and unskilled labour was also determined. The figures presented in Table I.4 are cumulative findings of the villages surveyed in each district and reflect the trends prevailing in individual districts. It may also be recalled that UNIDATA survey did not cover the centre of Faizabad.

Acute shortage of karez makers and midwives has been reported in the districts surveyed by the UNIDATA. Carpenters and silk weavers are short in five of the seven districts. In Keranomonjan district, all kinds of skilled workers are in short supply. Both Darwaz and Ragh are reported to be having an adequate supply of workers of various categories of skills.

the following reasons: firstly, it is the lack of proper agricultural infrastructure and facilities which are likely to promote poppy growing, as in those areas most crops cannot be grown whereas certain varieties of poppy can be. Secondly, the falling levels of local agricultural production would lead to a greater food deficit and a greater dependency of the people on food supplies from outside the province, which under the present circumstances are likely to be more costly; poppy cultivation, therefore, could be undertaken to pay for the cost of food imported from outside the province. In provinces like Badakhshan, agricultural rehabilitation programmes should be accompanied by crop substitution programmes which should also, simultaneously, provide affordable alternatives to the other products of household consumption generated from poppy. In other words, a crop substitution programme should not merely harp on the negative influences of the drug abuse, it should also assess the contribution of the crop in the household economy and should be able to provide alternatives that the household is able to afford. In the ultimate analysis, however, the eradication of poppy would not so much depend on the farmers growing the crop but on the powerful mafia conducting drug trafficking, who virtually have the monopoly on the immense profits involved. And they also command the authority to offset any crop substitution programme even if the farmer is willing to cooperate.

Annex. A

UNIDATA FIELD SURVEY

Objectives of the Survey

The UNIDATA survey was originally conceived with the following objectives:

a. to determine the effects of war, both in qualitative and quantitative terms, on various sectors of Afghanistan's economy and society, at the level of the district,

b. to assess, at the level of the district, the short term resettlement needs of the refugees and the priority areas for restoration of infrastructure required for initial rehabilitation, and

c. to point the direction for long-term development planning.

Admittedly, those were ambitious targets for the reasons that, firstly, the conditions of conflict that have persisted even after the regular hostilities ceased were a big security hazard, making certain areas virtually inaccessible for the purposes of the survey and, secondly, the financial resources needed for conducting such a survey, especially in highly insecure conditions which even make the provision of logistics for the survey team a very expensive proposition, were huge and beyond the capacity of the UNIDATA. Simultaneously, the concerned U.N. organizations were stressing for data that could be used for assessment of immediate resettlement and reconstruction needs and could be quickly generated. A detailed socio-economic survey was, therefore, not possible as it required relatively stable conditions to serve the purposes of sample selection and distribution and data collection, adequate finances and sufficient time for data analysis.

With the above limitations and requirements in view, it was decided to organize rapid, reconnaissance type of surveys leading to area-specific sectoral assessment of the current situation. The objective behind that exercise was to specify sectoral priorities in undertaking relief and resettlement work by various UN organizations and the non-government organizations (NGOs). To compensate as much as possible for the lack of detailed socio-economic data, it was decided to incorporate in the survey report the findings of the few other relevant studies available.

Methodology of the Survey

The questionnaire for the survey consisted of 14 sub-questionnaires addressing the most pressing multi-sectoral issues. The issues included in the questionnaire were determined on the basis of consultations with the UN organizations involved in the resettlement programmes in Afghanistan. The questionnaire was pre-tested in district Maruf of Kandahar province, followed by further consultations with the UN organizations and NGOs on questionnaire design; the questionnaire was revised and finalized in early April, 1990.

A 'Manual of Instructions' was also prepared for the use of data collectors and the data collection supervisors. Both the manual and the questionnaire were translated into Dari, as both the data collectors and the supervisors were to be Afghans. The data collectors were selected with extreme caution, keeping in view the abilities required to both understand and carry out the process of data collection and organize the activity with minimum possible bias, given the difficult situation inside Afghanistan. For the supervisors, in addition to the above qualities, the administrative abilities to solve difficult situations, resolve on-the-spot logistic problems and check if data collection was carried out according to the prescribed method and schedule were considered essential.

Following the selection, the data collectors and the supervisors had to undergo an extensive training both in the survey methodology and the questionnaire administration in Peshawar. For Badakhshan province, 12 data collectors and 3 supervisors were selected and divided into three teams; each team was assigned specific districts. The teams left for the province in July, 1990, and returned after completing the task in October, 1990, a period of about three months. The data collection went by without encountering any major difficulty in the areas surveyed; however, the districts of Eshkashem, Zebak, Wakhan, Sheghnan, Shahre Bozurg, the city of Faizabad and most area of Darwaz and Khwahan could not be surveyed, either due to unfavourable weather conditions and inaccessibility or due to being under the control of the Kabul government.

According to the survey design, a part of the questionnaire addressing the issues related to effects of war on population, refugee movement, agriculture and livestock, food and shelter and buildings was administered at the level of selected main villages in each district. In the earlier survey of Wardak province, the number of main villages covered was 2, which was not considered adequate to represent the picture of the whole district. For subsequent surveys, therefore, the number of villages was raised to 5-8 per district. However, for the reasons given above, only two villages could be surveyed in Khwahan district. The sub-questionnaires seeking to know the presence of mines at specific places and the losses and damages caused due to mines were also administered at the level of the main villages. Further, the condition of agriculture was determined through individually interviewing 10 landholders in each village (for names of the surveyed villages, see Annex.B). Other

information was gathered by interviewing in a group the area notables who usually included the area Mujahideen commanders, teachers, health practitioners, prominent landowners, mullahs (religious preachers), shopkeepers, etc. Admittedly, the data gathered through such a technique would hardly satisfy the requirements of a sound survey design. The method was, however, adopted keeping in view the restraints already mentioned and with the view that both qualitative and, to a lesser extent, quantitative insight would be gained into how the war had affected the local economy and the individual existence. In addition, the in-depth village level survey was to provide an assessment of priority sectors where resettlement programmes could be introduced.

The second part of the questionnaire was addressed at the institutional level in the sectors of health and education. The data collectors were required to visit each existing health and education facility in a district and administer the questionnaire to the responsible official/professional working at the facility. The aim here was to find out the existing state of those facilities with as many details as possible. In some cases, the state of security did not permit the data collectors to actually visit the facility; in such a case, the concerned official/professional was interviewed at another suitable location.

The third part of the questionnaire addressed the issues related to food and storage, industry and marketing, road and transport, power, telecommunication and water, prices of various commodities, etc. That part was administered at the level of the district, by interviewing informed persons with similar positions as mentioned in case of the village level survey except that those selected as respondents had a greater exposure to the developments at the district level; for those interviews the former maliks, who used to be village headmen representing the village community to the district administration, were considered to be very suitable, but most of them were found to have left the area and taken refuge either in Pakistan or Iran. The strategy to interview the 'key informants' in groups seemed to be successful, because if a participant's reply was not thought to be factually correct by other participants a discussion ensued and the correct situation was determined.

Presentation of the Study

As earlier mentioned, the present study relies on the findings of both the UNIDATA survey and other studies relevant to Badakhshan province and the topics included here. The methodology followed by the studies quoted are also discussed, where such information is available, so that the reader could have an assessment of the validity of the findings presented. Short references of studies quoted are given in the text in parentheses, with last name of the author, year of publication and the page number(s) appearing in the same order. If the year of publication and the page number are not available, the respective signs used are 'n.d.' and 'n.p.'. Full references of the quoted studies appear at the end of the report.

The report analyses the impact of war on various sectors of the economy at the level of the district in the first eight chapters. Inter-district comparisons are given with as much of detail as the availability of data would permit. The findings of the UNIDATA survey are supplemented by data available from other sources, where possible. It is hoped that the analytical approach followed shall help the planners to assess sectoral resettlement needs at as small a geographical level as the district.

The UNIDATA survey addressed only some principal issues concerning agriculture at the level of the locality (village). The main reason for not covering that sector comprehensively was because it has received a detailed treatment in the survey conducted by the Swedish Committee for Afghanistan (SCA). In presenting the situation of agriculture in the province, therefore, the SCA survey is taken to be the main data source. The findings of the UNIDATA survey are also presented as an aggregate of villages covered at the district level and are claimed to be fairly representative of the trends at that level.

The findings of the locality level survey, covering 5-8 main villages in each district, are presented in each relevant chapter, with the view to highlight how people have suffered due to both direct and indirect effects of the war and to put the sectoral analyses presented in various chapters in perspective. The findings are particularly focussed on how did the war effect the village population, agriculture, food supply and housing. The location of mines and unexploded devices around the localities are also given, where reported.

In the final chapter the resettlement needs in relation to sectoral assessments are discussed.

Annex. B

NAMES OF MAIN VILLAGES COVERED BY UNIDATA SURVEY

Baharak

Baharak, Borabara, Khairabad, Malang Aab, Sar Shehr

Darwaz

Daraj

Faizabad

Palang Darah, Toghak, Hafez Mughul, Ghozak Darah, Yusufabad

Jurm

Hazrat-i-Saeed, Kharandab, Khol-i-Maghzar, Dashtak, Qala-i-Gunbad

Keranomonjan

Iskazar, Shahran, Miyan Deh, Rubat

Keshem

Keshem, Dara-i-Jeem-i-Kajran, Sangab, Miyan Shehr, Farajghani

Khwahan

Sang Aab, Ghozan

Ragh

Ragh, Ahmad Dara, Paitab, Sadah, Shengan-i-Sufla, Buzkash

Annex. C

STUDIES IN AGRICULTURE AND METHODOLOGICAL LIMITATIONS

Systematic data on agriculture in Afghanistan has been absent even in pre-war days. The Afghan Government statistics available, especially for the period of war, are not considered to be much credible. The second source of information is the Agricultural Survey of Afghanistan, conducted by the Swedish Committee for Afghanistan (SCA), with the central objective of determining the effects of war on the country's agricultural sector. The SCA claims that it was "the largest, most wide ranging and most comprehensive survey of agriculture ever conducted in Afghanistan in peace or war" (SCA,1988,p.4). While the claim is intended to stress on the merits of the initiative taken, it also underscores the dearth of efforts aimed at studying a sector which has always been most crucial to the country's economy. Just how much ground still remains to be covered could be judged from the limited scope of the SCA survey; in the authors' own words, the study "does not attempt to present aspects of the whole picture of agriculture such as total area farmed, total production of wheat (and other crops), or any other kind of a census" (SCA,1988,p.3). What is available are the factors affecting the farm family and "trends in production, means of production, farm resources, and physical farm inputs which have occurred over the last ten years" (SCA,1988,p.4).

To begin with, it would be necessary to establish the limitations of the SCA study, so that the parameters are clearly defined within which the findings must be interpreted. The study had aimed to cover all the provinces but, unfortunately, could not cover Kandahar as some problems were encountered during the process which resulted in the rejection of all the interview forms. The results presented by the study for that province are based on interviews with Afghan refugees from the province in Pakistan, and the authors want the readers to treat those results "with caution" (SCA,1988,p.45,f.n.1).

The survey claims to cover about 1 percent of the farming households, based on estimates that the total rural population inside Afghanistan was 7 million, the refugees in Pakistan and Iran were 5 million, adding up to 12 million as the country's total rural population. The number of households are calculated to be 1.2 million, on the basis of the survey's finding that the household size was 10. As the total number of interviews included in the tabulations were 11,000 (including 1,301 community interviews), the sample constituted nearly 1 percent (exactly 0.92 percent) of the total farm households. It has been earlier shown that the household size of 10 was on a rather higher side, and that the figure of 8.5 would be more nearer to the reality (see Chapter II:Population). If that size is accepted, the number of farm families would increase to 1.41 million. Further, the number of interviews conducted with individual farmers is actually 9,699, as the community interviews were conducted mainly to assess the qualitative aspects and do not form part of the tabulations presented in the report. In this way, the actual sample coverage comes to 0.69

percent of the total farm households which may not be sufficient to give a representative picture.

The SCA study does not provide the distribution of sample with respect to provinces. It is not known that if the distribution corresponded to the number of farm owners (or farm households) in a province. That, however, appears doubtful as out of the total of 20,000 individual farmer interviews conducted, only 9,699 were retained; the rest of 10,301 interviews had to be discarded being sub-standard. It is not known if some provinces were over-represented in the 51 percent discarded interviews. In fact, that would almost certainly be the case as, firstly, the proportion of discarded interviews is very large and, secondly, the discarded interviews could not have been evenly distributed among the provinces. It leads to the disturbing conclusion that some (or most?) of the provincial "trends" presented may not be representative.

Organizing the survey was a commendable achievement on part of the SCA, as conducting that exercise in war time must have posed many obstructions. In fact, the First Report of the SCA describes some of the difficulties in data collection, where the process had to be suspended or carried on in adverse, even hostile, conditions (SCA,1988,p.11). All that, however, leads to inescapable doubts about the accuracy of the data collected.

Another methodological aberration seems to be to rely too heavily on the memory of individual farmers over the time span of a decade. Within the specified ten years, questions were asked relating to the five years of 1978, 1980, 1985, 1986 and 1987. In general, one would need extra-ordinary memory to remember all the fine details which have been asked in the interviews. Farmers, in particular, are not known for keeping account of such details. In fact, the authors of the survey have tried to generate a time series data in a very peculiar fashion, which one would find hard to accept even in a war situation.

Keeping the above limitations in view, only selected and broad conclusions from the SCA survey are presented here, which may also be viewed with some reservation. The results presented here mainly draw on the part of the survey related to farmers in Afghanistan, and only in cases where significant differences between the two categories exist a reference to the refugee part of the survey is made.

Annex. D

CONDITION OF ROADS IN BADAKHSHAN

Road Route	Cond-ition	Width meter	Length in 000 meters	Bridges			Culverts		
				I	P	C	I	P	C
Faizabad-Eshkhashem	U	9	80	3	0	0	20	10	90
Faizabad-Jurm	U	9	30	10	1	0	15	5	0
Keshem-Bahanak	U	4	70	0	2	2	0	3	10
Jurm -Baharak	U	6	3	0	3	4	4	1	3
Jurm-Camp Madan	U	6	32	1	4	2	10	0	20
Jurm-Khash	U	5	2	0	0	1	0	0	5
Jurm-Siab	D	5	4	0	0	1	0	0	6
Kalafgan-Faizabad	D	5	20	0	3	0	2	2	3

I = Intact; P = Partially damaged; C = Completely damaged
U = Un-maintained; D = Damaged

Source: UNIDATA, June-October, 1990

Annex. E

PROJECTS IN BADAKHSHAN REGISTERED BY ACBAR/SWABAC DATABASE

Agriculture

Key: O = Ongoing, C = Completed, D = Discontinued, P = Planned

Project		Baharak	Faizabad	Jurm	Keshem
Canals	O	2	1	-	1
	C	1	-	-	1
Field Crops	O	1	1	-	2
Horticulture	O	-	-	-	1
Livestock	P	-	1	-	-
	O	-	-	1	-
	C	-	-	-	1
Other	O	-	-	-	2
Traction	O	-	-	-	1
Veterinary	O	-	1	1	2
	P	-	1	-	-

Education

Project		Faizabad	Keshem	Ragh
Primary Education	O	2	2	1
Secondary Education	O	-	1	-
Teacher Training	O	-	1	-

Table I.4: Availability of Skilled and Unskilled Labour

Type of Skills	Baharak	Darwaz	Faizabad	Jurm	Kerano-monjan	Keshem	Ragh
Mason	5	200	21	40	3	35	180
Karez maker	0	0	0	0	0	0	0
Carpenter	6	180	27	53	1	33	120
Mechanic	1	0	3	14	0	4	111
Carpet weaver	0	160	5	0	0	0	117
Silk weaver	0	50	6	0	0	0	112
Tailor	0	200	13	45	0	17	116
Blacksmith	0	200	10	25	0	8	113
Coppersmith	3	280	12	25	0	9	231
Untrained teacher	7	50	9	9	4	13	46
Trained teacher	3	60	16	99	1	64	33
Midwife	0	0	0	0	0	0	0
Driver	1	0	11	20	0	19	13
Unskilled	300	700	800	380	51	700	N.A.

Note: N.A. = Information not available

Source: UNIDATA, June-October, 1990

I.4 Local Situation

A report submitted in October 1990 to a United Nations agency describes briefly the local political scene in Badakhshan province. The urban areas and the districts bordering the Soviet Union are reported to be under the control of the Kabul government; the remaining districts and transportation routes are under the control of the Mujahideen. There are two main groups in the province: Jamiat-i-Islami and Hezb-i-Islami (Hekmatyar). The areas of Yaftals, Shiva and some northern parts of Badakhshan are under the control

Food

Project		Baharak	Darwaz	Faiz-abad	Jurm	Keshem	Ragh
Cash for Food	O	-	1	-	-	1	1
	C	1	-	1	-	1	-
	D	-	-	-	-	2	-
Food Dist	O	-	-	1	-	2	-
	C	-	-	-	1	-	-

Health

Distt.	BHC	BHP		CHC		DHP		HT		IMZ		INC		LAB		MCH	
	O	O	D	P	O	O	P	O	P	O	P	O	P	O	P	O	P
Baharak	-	28	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-
Darwaz	1	5	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
Faizabad	5	4	3	-	2	-	-	1	-	1	-	1	-	-	-	-	-
Jurm	2	1	-	-	1	1	-	1	-	1	-	-	-	1	-	1	-
Kerano-monjan	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Keshem	2	12	1	-	3	-	1	1	1	1	1	-	1	-	1	- 1*	1
Ragh	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shahre Bozurg	2	2	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-

BHC=Basic Health Centre, BHP=Basic Health Post
CHC=Comprehensive Health Centre, DHP=District Hospital
HT=Health Training, IMZ=Immunization, INC=Inpatient Centre
LAB=Laboratory, MCH=Mother and Child Health Centre *=Discontinued

Income Generation

District		Assist Craftsmen	Assist Vulnerable	Employment Office	Other Relief	Other
Keshem	O	1	-	1	1	1
	P	-	1	-	-	-

Water

District		Drinking Water
Keshem	C	1

Others

District		Bridges	Demining	Shelter
Baharak	P	-	1	1
Jurm	C	1	-	-

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of Jamiat-i-Islami. Most of the strategic regions are controlled by Hezb-i-Islami (Hekmatyar), which include the areas west of Faizabad to Keshem and north of Baharak to Zardew. The group also controls the Lapis Lazuli mines and the road to Pakistan constructed under the U.N. programme. The main poppy growing area of Khash is also reported to be under the control of the group. The transportation route to Takhar province, to the west of Faizabad, is also controlled by the same group (Deghati,1990,n.p.).

II. POPULATION

II.1 Population Characteristics

The last population census was conducted by the Afghanistan government in 1979. The census, however, remained incomplete due to the civil strife that ensued at that time, after the change in the government. The gaps in the census were later filled by the government by estimating the missing data. The census remains the last primary source on population in Afghanistan. The population and population density of various districts in Badakhshan province in 1979, as determined by the census, are presented in Table II.1.

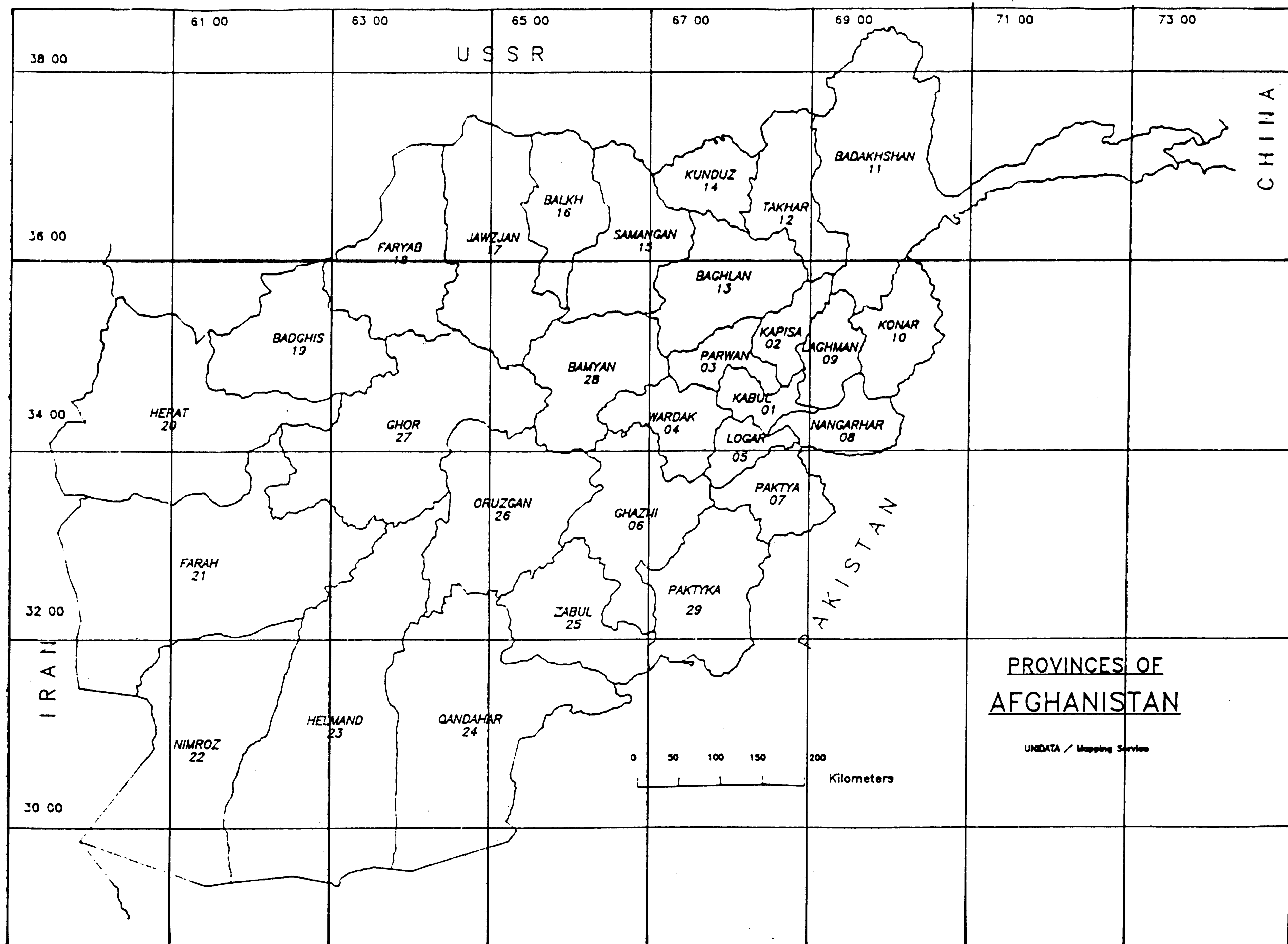
Table II.1: Population and Population Density - 1979

Name of District	Population	Density/ sq.km.	Name of District	Population	Density/ sq.km.
Baharak	46,093	16	Khwahan	9,960	13
Darwaz	51,829	13	Ragh	52,267	38
Eshkashem	7,286	2	Shr. Bozurg	28,994	32
Faizabad	140,328	47	Sheghnan	18,241	5
Jurm	50,190	14	Wakhan	9,178	1
Keranomonjan	5,590	1	Zebak	4,608	1
Keshem	73,194	24	Province	497,758	11

Source: Compiled from DRA, 1986

The total settled population of Badakhshan province in 1979 was 497,758. The urban population numbered 10,142, making 2.0 percent of the provincial population. The urban areas existed only in the capital Faizabad and district Jurm, with populations of 9,098 and 1,044, respectively.

In terms of population, Faizabad was the largest district accounting for 28.2 percent of the total provincial population. Keshem was next, with 14.7 percent of the population. The other districts with substantial population were Ragh, Darwaz, Jurm and Baharak, having 10.5 percent, 10.4 percent, 10.1 percent and 9.3 percent, respectively, of the total population of the province. Shahre Bozurg and Sheghnan made up 5.8 percent and 3.7 percent, respectively, of the provincial population. The other five districts had populations



61 00
63 00
65 00
67 00
69 00
71 00
73 00
38 00
36 00
34 00
32 00
30 00
U S S R
CHINA
IRAN
PAKISTAN
BADAKHSHAN 11
KUNDUZ 14
TAKHAR 12
BALKH 16
SAMANGAN 15
JAWZJAN 17
FARYAB 18
BAGHLAN 13
KAPISA 02
LAGHMAN 09
KONAR 10
PARWAN 03
BADGHIS 19
BAMYAN 28
KABUL 01
WARDAK 04
LOGAR 05
NANGARHAR 08
HERAT 20
GHOR 27
PAKTYA 07
ORUZGAN 26
GHAZNI 06
FARAH 21
PAKTYKA 29
ZABUL 25
HELMAND 23
QANDAHAR 24
NIMROZ 22
0 50 100 150 200
Kilometers
PROVINCES OF
AFGHANISTAN
UNIDATA / Mapping Service

Provinces of AFGHANISTAN by Region

UNIDATA / Mapping Service
(July '90)

KUNDUZ
14

TAKHAR
12

BADAKHSHAN
11

BALKH
16

SAMANGAN
15

FARYAB
18

JAWZJAN
17

BAGHLAN
13

KAPISA
02

BAMYAN
28

PARWAN
03

KABUL
01

WARDAK
04

LOGAR
05

LAGHMAN
09

KONAR
10

NANGARHAR
08

BADGHIS
19

HERAT
20

GHOR
27

GHAZNI
06

PAKTYA
07

FARAH
21

ORUZGAN
26

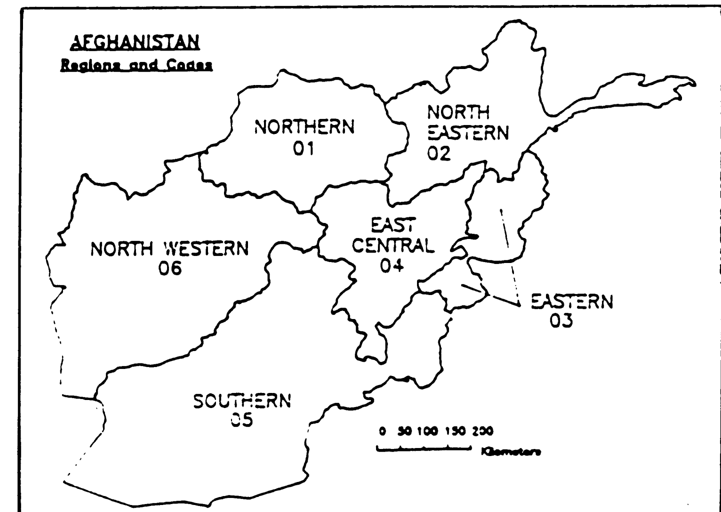
PAKTEKA
29

ZABUL
25

NIMROZ
22

HELMAND
23

QANDAHAR
24



BADAKHSHAN

Darwaz

Khwahan

Sheghnan

Ragh

Shahre Bozurg

FAIZABAD

Baharak

Wakhan

Jurm

Keshem

Eshkashem

TAKHAR

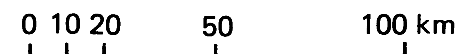
Zebak

Keranomonjan

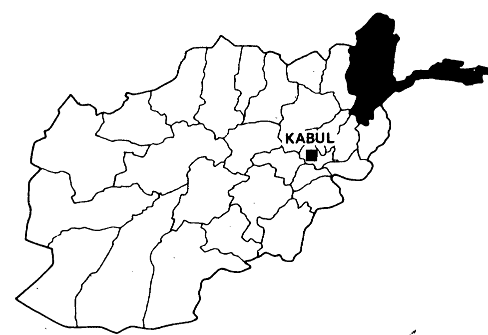
KAPISA

KUNAR

LAGHMAN







ADMINISTRATIVE BOUNDARY MAP OF BADAKHSHAN PROVINCE

International boundary

Province boundary

Woleswali and Alaqadari boundary

Province Center

Woleswali Center

Alaqadari Center

Afghanistan

BADAKHSHAN PROVINCE

A Socio-Economic Profile



UNIDATA
A Project of UNDP/OPS & UNOCA



PREFACE

'Badakhshan - A Socio-Economic Profile' provides an inventory of the current state of economic and social conditions and physical infrastructure at the provincial, district and sample locality levels. The information is derived from a field survey conducted by UNIDATA in June-October, 1990. Information from other sources has also been incorporated to complement and check consistency of data sets.

Consistent with the survey design, the report has been structured to provide sectoral analysis at the district level as well as the sample locality level. The analysis at the district level also offers an assessment of the impect of the war on the local economy, highlighting inter-district variations. This should enable planners to determine sectoral resettlement and rehabilitation requirements at the district level. The sample of the main villages covered provides an understanding of how people have suffered due to both direct and indirect effects of the war.

The methodology of the data collection, as described in Annex A, was conditioned by the feasibility of implementing field surveys under the prevailing uncertain situations on the ground. Nonetheless, consistency of the information gathered has been checked against information available from secondary sources. The quality of the data may be further improved by accessing undated information as it becomes available from agencies involved in field work in Badakhshan province.

Comments on the report are welcomed and should be addressed to the Project Manager, UNIDATA, Kabul or to the Officer-in-charge of any one of the UNIDATA project offices listed at the end of the report.

15 February 1992
Kabul, Afghanistan

David E. Lockwood
Resident Representative
UNDP-Kabul.

The UNIDATA survey results, and the analysis thereof, presented in this report are those of the UNIDATA project and do not necessarily reflect views of UNDP/OPS and UNOCA

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